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EDOUARD CLAPAREDE. (1873-1940.)

EMULATING his uncle, after whom he was named, and his cousin, Théodore Flournoy, whom he admired, Edouard Claparède, later to become Professor of Psychology at the University of Geneva, pursued the study of natural science by way of medicine. He was a keen experimenter; biology was of especial interest to him. Later, Flournoy's lectures on *L'âme et le corps* roused in him an interest in psychology, the new psychology of Fechner and Wundt, a psychology concerned with laboratories and with the accuracy of measurements by chronometers registering millionths of a second.

Claparède joined Flournoy's class and did the practical course in his laboratory. There he met William James who was paying a visit. Going to Paris enabled him to meet and consult with Alfred Binet about "coloured hearing". He took his medical degree at Geneva in 1897. The year 1898 he spent at the Salpêtrière with Dejerine: it was by way of neurology that he re-entered upon the study of psychology.

In 1899 he was conducting in the laboratory of Flournoy at Geneva a practical course on sensation. At the same time he continued his interest in neurology, enjoying clinical experience of nervous cases and for some years acting as a consultant. His inclination to zoology led to an interest in animal psychology: a lecture by Loeb in 1899 denying the possibility of an animal psychology, caused him publicly to affirm that animal psychology was quite as legitimate as human psychology. So that, about the year 1900, he was occupied in three directions, namely, with clinical neurology, laboratory researches, and animal psychology. To these three was soon added a fourth, namely, an interest in the applications of psychology to education, roused in him by a report he was

asked to make upon possible improvements in the teaching of backward children. Finally, he wished to bring the various aspects of psychology into focus, but lacked for a time the necessary unifying principle. This unifying principle, however, he soon felt he had found in the importance of instinct for the mental life, a notion which had come to him from the reading of "The Play of Animals" by Karl Groos. By the aid of this notion he was able to conclude that the natural tendencies of children, especially the tendency to play, should provide the basis of pedagogy. In 1908 he became Professor of Psychology at the University of Geneva.

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It may or may not be true to say that psychology has been, perhaps still is, "a tumbling ground for whimsies". It is true that there are many different conceptions of the field of psychology, and many inquirers pursuing very different lines of inquiry. For example, there are the structuralists as contrasted with the functionalists; and that distinction is pertinent to the development of Claparède's psychology. His interest in biology perhaps it was which led him to a functional view of mental process. Function was the conception which dictated his critical treatment of the "Association of Ideas", published for the new *Bibliothèque de Psychologie expérimentale*. In this publication he attacked associationism when it was still enjoying the predominance given to it by Herbart. While Claparède did not deny relation among ideas, he yet criticised the current conception of associationism for not explaining the direction taken by ideas. He had himself already shown by experiment that often the association was accompanied by "the feeling of the direction in which the response will be made", that the feelings of relation slipped in between the inducing word and the word induced. Claparède contended that by this study he had been led to the threshold of the region which was to be explored some years later by the Wurzburg school. The Gestalt school's insistence that parts take on character from the field in which they form configurations; the notion that the whole is more than the sum of its parts; James' analysis of the stream of consciousness into a series of flights and perchings,

the perchings being the ideas and the flights the "feelings of relation", and more recently, Kurt Lewin's "Dynamic Theory of Personality" which enables an account to be given of a real individual in action instead of a statistical nonentity; all these schools contend for a factor of life and movement which must be included if the object of attention is to be a lively interplay and not merely a static structure. For the source of this lively direction given to mental process Claparède turned to biology which offered him a conception of the dynamics of behaviour in the agreement existing between the excitation and the need of the organism, an agreement necessary to the maintenance of life. It was required to explain this correspondence between the need and the reaction necessary to satisfy it, that is, to explain the capacity of the organism to react according to its interest of the moment. The explanation is a problem in biology: for psychology the relation is a *datum*. Thus Claparède was led to his *Law of the interest of the moment*, which states: "At each moment an organism acts in accordance with its greatest interest", interest being the relation between the reaction and the need. The dynamic of the situation is determined at one and the same time by the excitation and the need of the moment. In this way, he believed, the atomic disjointedness of associationism gave way to the dynamic of need with its demand for satisfaction: psychological direction is to be explained by biological preparation. It was thus, too, that a strong tendency to teleological explanation entered into Claparède's exposition of psychological processes.

In his study of the nature of sleep Claparède gave another example of the failure of such explanations as took no account of function. For his explanation of sleep he found again the fruitfulness of the biological interpretation. He holds that sleep is not, as hitherto contended, a kind of exhaustion from the toxins of fatigue, but a positive activity, an instinct of protection from exhaustion. He finds three reasons in support: (1) the toxic effects of fatigue when it has passed certain limits, provoke insomnia, not sleep, so that sleep cannot be a simple function of fatigue; (2) observation reveals that, without any fatigue, an extreme lack of interest causes sleep to ensue;

(3) many species of animals exhibit an instinctive sleep lasting weeks, and even months. Sleep is not a direct result of exhaustion, but a reflex anticipation of defence against exhaustion. It is not because we are exhausted that we sleep, but we sleep in order not to become exhausted. This function of protection consists in suspending the activity of the individual by depriving him of his interest in the situation of the moment. However, the psychological interest is itself determined by the organic interest, and sleep is therefore a particular case of the "law of the interest of the moment".

Continuing to rely upon biological and teleological explanation of psychological processes, Claparède went on to inquire what purpose infancy served, what purpose intelligence served, what purpose volition served. Even the problem of consciousness itself he claimed to have clarified by appeal to function: consciousness appears (intervenes) when action is held up, and the development of mental life is proportionate to the separation existing between needs and the means of satisfying them. One cannot say either that consciousness is a necessary concomitant of all psychical operations, or that it appears upon chance contacts imposed from without. There is a law of the function of consciousness: consciousness appears only with failures of adjustment. So long as the activity of the subject is adjusted, there is no need for conscious attention.

Again, intelligence intervenes when automatism, whether instinctive or acquired, fails to provide the solution of a problem in behaviour: it is by thought that the problem of adaptation to what is new is solved.

While intelligence has to solve the problem of means, volition has to solve the problem of ends. Volition intervenes when action is momentarily suspended by conflict between two tendencies, and it readjusts action by giving supremacy to the superior tendencies. (Claparède does not seem to have been so concerned with the difficulty of deciding which tendencies are superior, and what constitutes superiority. Further, he seems to have been more concerned with what sleep, intelligence, volition, and consciousness do than with what they are. He

certainly was pragmatic.) Finally, Claparède came to regard all mental development as a continual readjustment of equilibrium.

In 1901, Claparède, along with Flournoy, founded the *Archives de Psychologie* which at his death had attained to its XXVIIIth volume.

Encouraged by the reception of his "Psychology of the Child", which ran quickly through four editions and which was translated into six or seven languages, and having the fortunate collaboration of Professor Pierre Bovet of the University of Neuchatel, and now of the University of Geneva, Claparède was able with the support of a group of friends to open in October, 1912, "A School of Educational Science" to which he gave the name: *L'Institut J.-J. Rousseau*.

He had been, since 1926, permanent secretary of the International Congresses of Psychology.

He died suddenly about the month of May, 1940. The last article which he wrote for the *Archives* appeared in May under the title *La Perte des Idées*.

H.T.L.

PERSONALITY TRAITS BY FACTORIAL ANALYSIS (II).*

By C. A. GIBB.

It has been pointed out already¹ that personality is not a simple thing. It is analysable into a number of "traits", which have been defined as comparatively consistent patterns of habits. Personality is, however, more than a sum of traits. It is a *gestalt*, in which the parts are traits having fixed or changing relations with each other and the whole; so that personality is a totality having quality. But personality is, itself, a quality of the individual arising out of the individual's relations with his environment. This is closely akin to Lewin's concept of behaviour as a function (in the mathematical sense) of the person and the environment. In fact the definition of traits we have offered is in terms of behaviour. Personality is, then, a manner of behaving. As such it may have certain of the psychological techniques of measurement applied to it—if indirectly and somewhat uncertainly.

The final, or even the better, definition of personality would seem to wait upon these attempts at measurement. Though the concept of personality is, at present, particularly nebulous, little can be gained by delaying the application of test techniques in this field. Psychology did not wait to clarify its concept of intelligence before attempting its measurement. Indeed test results have been largely responsible for the increasing clarity of the concept of intelligence; and it may be hoped that personality tests will eventually yield a comparable result. It might, however, be borne in mind that the analysis of tests of "general intelligence" bids fair to lose sight of the very thing being analysed. A similar danger confronts the

* The author wishes to acknowledge the financial assistance of the Australian Council for Educational Research both in the provision of test material and in the publication of this report.

¹ C. A. Gibb: "Personality Traits by Factorial Analysis (I)", *Australasian Journal of Psychology and Philosophy*, 1942, 20, pp. 1-15.

analysis of tests of personality. Just as intelligence may well be something more than a mere average of special capacities, so may personality be more than the sum of traits into which it is being analysed. This, however, is not to deprecate the analysis which is an essential contribution to our understanding.

The difficulties in the way of applying a quantitative technique to personality data are numerous and almost prohibitive. In the first place, personality is not a mere accumulation of traits, but takes part of its quality from balance among these traits. It is, itself, a quality rather than a quantity. Any notion of measurement in this field has, therefore, to depart from previous conceptions of measurement. While it is possible to conceive of the cognitive abilities as existing in certain quantities from less to more; while one can conceive of zero quantity of number or verbal ability; one cannot even think of "no personality". Every individual has personality if he moves in his environment at all.

The unit of measurement in the field of personality is hard to define. Of almost any trait there may be both positive and negative expression, so that the measurement of personality traits is bipolar. It is the habit of both the layman and the psychologist to speak somewhat loosely about personality and personality traits. Even the more scientific terms are interpreted with a good deal of latitude. Gilliland, for example, complained that two quite reliable tests of introversion—extraversion might measure different things because their authors defined these terms differently. Perhaps Guilford's² later discovery of several independent factors in a single test of introversion—extraversion offers an explanation of Gilliland's difficulty. Perhaps, too, that analysis suggests the reason why there is confusion at all in the definition of traits. It may be that not a simple trait but a complex group of traits is being designated by a single term. When such knots have been unravelled, and simple traits defined, it may be that they will be found to have gained a certain constancy.

² J. P. and R. B. Guilford: "Personality Factors S, E and M", *J. Psych.*, 1936, 2, pp. 109-127.

There is the further difficulty that any particular trait is not always in evidence. Chance alterations of mood or slight differences in the elements of the situation bring about changed responses. One can only hope to sample the trait in a number of situations and rely upon a modal response as an indication of the individual's quantitative possession of the trait. But even in this procedure there are two obvious difficulties. Traits, however well defined, are not static. Thus samplings may present a picture which is but a snapshot of a moving scene. Further, there is the necessity of assuming that observed responses are accurate representations of the nature and intensity of the trait in question.

The greatest problem of the personality test still remains. This is the difficulty of determining test reliability and validity. The nature of most personality tests is such that the calculation of repeat reliabilities is often quite out of the question. It may be impossible to re-create the conditions of the test which are so vital to it. Further than that, the fluctuation which occurs in the manifestation of the trait itself tends to reduce the figure for reliability to below its true value. But the difficulty of determining the reliability of such tests, while it is great, scarcely compares with that involved in the determination of validity. Since no ready criteria of the ill-defined personality traits exist, the test maker must locate or improvise reliable objective criteria. The two main improvisations have been the pooled judgments of a number of persons believed capable of making them accurately, and clinical selection of contrasting homogeneous groups. Neither is completely satisfactory.

THE AIM OF THE STUDY.

There have been measures of the "whole" personality; there have been analyses into a hundred and one different "traits" each regarded as independent of others. Psychologists on both sides of the Atlantic have proffered measures of neurotic tendency, emotionality, introversion, surgency, sociability, self-sufficiency, ascendance or dominance, masculinity, depression, elation, alertness, fluency, perseveration and a

score of other such traits. They test for such character traits as honesty, fairness, tact, initiative, cooperativeness, persistence, leadership, sympathy and suggestibility. Attitudes to religious, political and economic issues, interests in academic and vocational pursuits are all being assessed on the basis of the psychologist's "tests".

Yet it has been clear that out of this chaos and confusion there might be deduced a certain order. So-called "traits" have been shown to be not homogeneous components of the human personality, but often themselves quite complex. The various traits appear not independent, but often closely related.

The numerical assessment of "traits" has made possible trait intercorrelation. The technique of factorial analysis has enabled the correlation table to be related to a reference frame, each axis independent of the others. It has thus become possible to analyse measures of personality in order to determine the number of independent *factors* upon which the variance in these measures may be assumed to depend. Many such studies have been made.³ From the profusion of material existing numerous combinations of measures have been submitted to analysis. So diverse have been the starting points, so varied the techniques, that the inevitable outcome has been no complete agreement of results. There has, however, been sufficient agreement to stimulate interest, and the hope that stable components of personality may eventually be isolated.

It is the aim of this study to submit to factorial analysis a group of personality tests. These tests are to be selected upon their *a priori* relation one to another. Each of the major tests is to represent a definite claim to measure an identified trait of the human personality.

The personality tests which have been selected for this study may be classified in three groups. First, three distinct questionnaires have been used. Of all the variables, the main interest centres upon these. They are: the Allport A-S Reaction Study, the Personal Inventory and the Bernreuter Personality Inventory.

³ See historical summary in Part I of this discussion, *A.J.P.P.*, 1942, 20, pp. 1-15.

Secondly, tests of Fluency and Perseveration have been included. This choice was decided by Cattell's enthusiasm for these types as tests of personality traits. Fluency tests are claimed to measure what Cattell has called Surgency. Surgency is akin to extraversion, but extraversion-introversion has been shown to be not a simple trait. Therefore, if Fluency tests measure something beyond and independent of the questionnaires, that something is of interest for personality study. Perseveration tests, on the other hand, are held to be indicative of unreliability and difficulty of temperament and such tendencies as that of chronic anxiety. Clearly these are among those diagnostic factors which the questionnaires have sought to reveal. Inclusion in the one study of representative questionnaires and these more objective tests of fluency and perseveration will yield an intercorrelation table which, in analysis, should reveal the nature of any relation between the two types of test.

Thirdly, the assembled group of tests includes an age scale, the Otis Self Administering Test of General Ability and tests selected from the Australian Institute of Industrial Psychology Clerical Test. The selected sub-tests are (a) Digit symbol substitution, (b) Spelling correction, (c) Concentration, and (d) Free-chain association. These tests are in the nature of a control group. It is conceivable that one's degree of intellectual ability might well affect his score upon both classes of test mentioned above, not only because intelligence may affect the way the test material is handled, but also because it plays a fundamental part in the genesis of personality traits. In a group less homogeneous as to intelligence than that used here, one might expect the intelligence test score to play a greater part in the determination of traits. The tests of the clerical battery purport to measure special abilities, such as association, attention and concentration abilities. These, too, may have their effect upon the tests of classes one and two.

The specific aim of the study may now be stated. It is to analyse, by application of the factorial technique, the intercorrelations obtaining among the tests mentioned above; the intercorrelations having first been "purified" to the extent

that the differential effects of varying age among the subjects shall have been annulled. This will be done by the application of Yule's partial correlation formula. Further, the analysis aims to yield as few independent components of the experimental assembly as possible ; and to define or identify those components.

THE TEST GROUP.

A study which is based wholly upon the analysis of correlation coefficients necessarily demands a large group of subjects, since the reliability of the correlation coefficient varies as does N . The present research programme was planned to yield approximately 200 sets of complete results. Accordingly approximately 280 tests were administered in the University of Sydney to groups of students which were constituted as follows :

Group 1. First Year Psychology Class (Day). Tests administered 110. Complete sets returned 86. Of the 86 people whose data were thus available for analysis, 66 were women.

Group 2. First Year Psychology Class (Evening). Tests administered 120. Complete sets returned 79. Of these 79, 66 were men.

Group 3. Second Year Psychology Class (Evening). Tests administered 20. Complete sets returned 12, 8 of which were men.

Group 4. Second Year Social Science Class, Teachers' College. Tests administered 32. Complete sets returned 23. This group consisted entirely of men.

Intelligence. These four groups proved reasonably homogeneous as to scores upon the Advanced Otis Examination. The distribution of intelligence is, therefore, shown for the total group (Figure 1), but not for each group separately. With this distribution is shown the equivalent Mental Age based upon the United States norms for college students.

Age. The age distribution of the group is shown in Table 1.

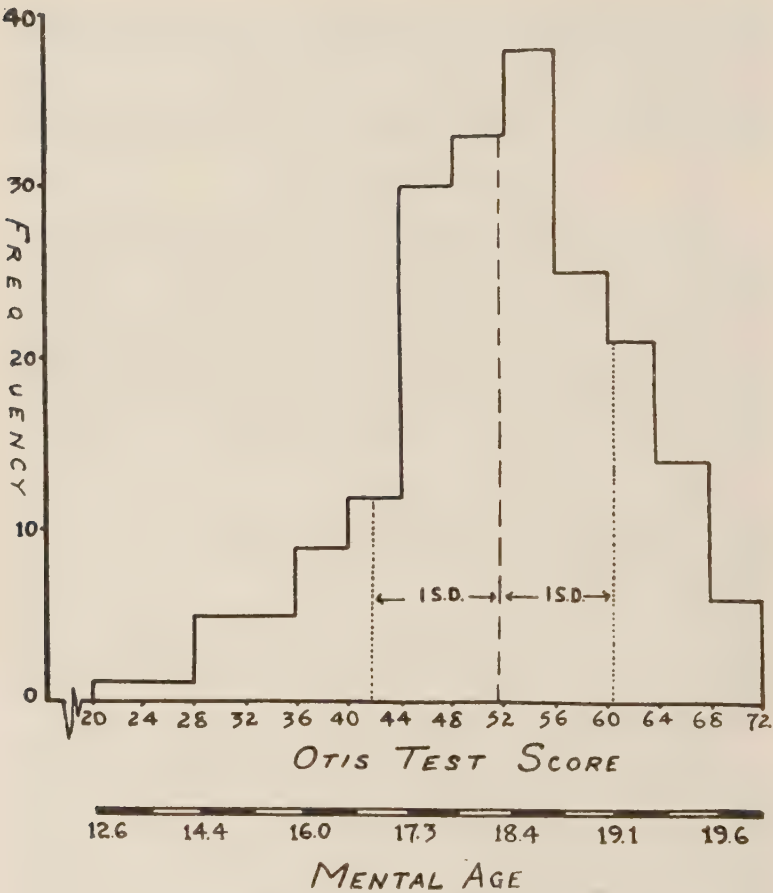


FIG. 1. DISTRIBUTION OF INTELLIGENCE.

TABLE 1.
Age Distribution.

Age	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Over 30	N
Women	4	17	28	7	9	2	6	1	2	1	1	2	0	0	0	3	83
Men	5	18	22	17	11	8	7	6	6	6	3	3	0	1	1	3	117
Total	9	35	50	24	20	10	13	7	8	7	4	5	0	1	1	6	200

The modal age was 18 years, the median age 19·2 years, and the mean age 20·2 years.

Sex. The sex division of the experimental group is also indicated in Table 1; 83 individuals or 41·5 per cent. were women, and 58·5 per cent. men.

THE METHOD IN OUTLINE.

Test Administration. The chosen tests were all group tests. They were administered to the four experimental groups separately and at different times.

With the exception of the Teachers' College group, where four sessions were used, the tests were given in three one-hour sessions. Tests were administered so that in each session one time-limit test would be followed by a no-limit test. Except with the Teachers' College group, the Perseveration tests were administered in the following week by Walker, Staines and Kenna,⁴ who have allowed the results to be used here.

Intercorrelation of Scores. Because of the long time required for the calculation of the product-moment correlation coefficient, and the fact that trained clerical assistance was not available, the writer has chosen to calculate tetrachoric coefficients for all test scores.

The categories required by the tetrachoric coefficients have been obtained by sectioning each distribution at, or near, the median. The standard error of a tetrachoric coefficient whose true value is zero is about $\pm 0\cdot12$ for a population of 200 subjects when the dichotomic lines are at the medians.⁵ The standard error of a product-moment coefficient of zero for the same population would be about $\pm 0\cdot07$. The use of tetrachorics, therefore, sacrifices something in accuracy.

In order that the extraneous factor of age should not affect the results, partial correlation coefficients have been found and recorded in Table 2. This table, then, represents the matrix of correlations which has been analysed by the Thurstone factorial technique.

⁴ K. F. Walker, B. G. Staines, and J. C. Kenna: "Is There a General Factor of Perseveration?" *A.J.P.P.*, 1941, 19, pp. 58-75.

⁵ T. L. Kelley: "Statistical Method", Macmillan & Co., 1923, p. 257.

TABLE 2.
Intercorrelation of Test Scores.
 Showing both the Partial Correlation Coefficients and the Raw Coefficients (in Italics).

Variable.	1	-2	-3	4	-5	6	-7	8	9	10	11	12	13	14	15	16	17	18	19	20	Sex.	Age.
1 A-S ..																						
-2 P.I. . .	47																					
-3 F1-C ..	64	87																				
4 F2-S ..	-05	-21	-01																			
-5 B1-N..	52	82	99	-50	45	39	-39	54	28	10	25	-10	25	-20	-02	21	00	06	-05	-05	07	43
6 B2-S ..	35	54	62	69	45	39	75	75	26	-02	-10	10	07	10	21	16	22	03	-02	-05	20	10
-7 B3-I..	53	80	98	-50	94	42	80	24	20	02	02	-06	-25	22	15	28	03	20	-04	-27	32	48
8 B4-D..	71	57	82	24	88	32	26	24	20	-01	42	14	02	12	31	00	06	-03	-01	-14	30	-03
9 Oth's ..	-04	12	16	19	21	32	26	-04	-01	02	34	43	43	06	25	12	19	10	-08	09	-06	12
10 C1 ..	05	02	-08	04	-02	06	-03	-04	-01	32	22	22	22	06	25	13	-07	-07	29	-01	13	30
11 C2 ..	-08	-03	-11	25	-17	14	-14	-14	45	42	15	22	38	31	42	31	19	10	22	04	23	28
12 C4 ..	-01	14	-02	01	07	-25	07	-22	16	42	20	05	23	-07	25	00	19	15	01	11	02	12
13 C6 ..	16	07	-12	00	10	22	06	-34	02	48	20	23	-12	59	25	25	31	40	18	13	12	36
14 F1 ..	16	11	-03	-17	03	-44	07	06	14	02	05	23	24	57	17	25	25	40	18	00	03	21
15 F2 ..	08	18	10	09	31	-12	20	06	32	24	20	38	24	57	17	31	40	64	45	00	34	46
16 F3 ..	06	17	06	03	15	01	12	07	01	08	-01	21	-06	11	17	31	20	30	-10	00	-05	30
17 F4 ..	12	03	-08	23	12	-15	20	-13	07	16	-02	11	16	22	20	56	20	17	00	30	42	17
18 F5 ..	10	02	05	-01	02	-15	-01	00	-02	06	-22	-03	11	30	35	42	-16	11	22	22	23	47
19 F6 ..	01	04	06	01	09	-14	-03	-14	-01	-09	25	18	-01	13	15	42	-16	03	21	13	-15	-07
20 P6 ..	01	12	04	-29	11	-02	-04	-26	-14	10	01	06	12	16	01	03	02	03	21	13	-15	-07
21 Sex M.	-10	28	10	-11	26	-15	17	11	35	-12	00	11	-03	-04	-07	18	-21	13	17	-13	45	

Note.—All decimal points and plus signs have been omitted.

THE RESULTS.

The aim of this study is such that it is concerned not so much with the results of the tests in terms of scores, as with the intercorrelations between various tests. The object now is to find out what relationship there is among these twenty tests. We wish to know whether the Bernreuter scales are independent, whether any of those scales bears any significant relation to scales of similar type such as the Allport A-S and Personal Inventory. How are fluency tests related to these questionnaires and to tests of perseveration? Do these more objective tests measure personality traits as the questionnaires measure them? If these groups of tests are independent, to what extent is this so? There are many questions like these we wish to answer; and we seek the answer in statistical analysis of the correlations among the tests shown in Table 2.

Controlling the Age Variable. It will be remembered that there was considerable age variation within the group. Though there may well be a developmental factor in personality, it was felt that its appearance here would but complicate the picture. Such scales as F1-C, B2-S and B4-D show a considerable correlation with age. One gets more self-confidence, more self-sufficiency, and more dominance as one gets older. On the other hand the group was sufficiently selected to show no correlation between age and intelligence test score. The Fluency tests show a consistently significant positive correlation with age. The scores increase in general as one gets older. There is, too, some correlation between age and masculinity of sex for no other reason than the selective factors that operate in determining the personnel of a university group. Since these age influences were due largely to this selection and affected the tests irregularly, it was decided to remove the age factor. To take out of the correlation any influence that age variation might be having, use was made of Yule's formula for partial correlation. These partial coefficients are shown in Table 2 below the diagonal cells.

Distribution of Partial Correlation Coefficients. It will be seen that tests 2, 3, 5 and 7 (i.e. P.I., F1-C, B1-N and B3-I) have been reversed in Table 2. The reason for this has been

that these scales are so devised as to measure instability while all the other scales measure stability. This constructional peculiarity was responsible for a majority of negative coefficients in the columns for each of these four tests. They were, therefore, reversed and the table of partial correlations then presented showed a majority of positive coefficients.

TABLE 3.
Frequency Distribution of the Partial Intercorrelation Coefficients of the Twenty Tests and Sex with the effect of Age held Constant.

Class Interval.		Frequency.
From.	To.	
-0.55	-0.45	1
-0.45	-0.35	1
-0.35	-0.25	3
-0.25	-0.15	11
-0.15	-0.05	20
-0.05	0.05	49
0.05	0.15	46
0.15	0.25	35
0.25	0.35	11
0.35	0.45	10
0.45	0.55	7
0.55	0.65	5
0.65	0.75	2
0.75	0.85	4
0.85	0.95	3
0.95	1.00	2

Total : 210.

Already it has been shown that the standard error of a tetrachoric coefficient whose real value is zero is ± 0.12 . Assuming that some of the tests really are uncorrelated, we should expect among the partial coefficients perhaps one as low as -0.36 . That is assuming, too, that each of the tests is measuring the same thing. In Table 3 two negative coefficients exceed the value 0.36 . These are the coefficients of correlation between tests $-B1-N$ and $F2-S$, -0.50 and tests $F1$ and $B2-S$, -0.44 , both of which are understandable. This result, in itself, is interesting. There was no indication, prior to the calculation of Table 2, that these tests did all measure a similar thing. Now, however, it would appear that almost all the correlations are positive or zero. The tests which show statistically insignificant correlations are usually those with a restricted range of content. Those showing significant positive

coefficients are the more complex type which involve many common elements and even identical questions. The great majority of these coefficients are statistically insignificant, that is, lie between 0.30 and -0.30. The indication is that there is no important general factor running through Table 2.

Mean Group Correlation. Since this is the case, it is interesting to apply the technique of mean group correlation, which Alexander⁶ suggests, to the partial correlation coefficients of Table 2. He points out that if, in a battery of tests which may be grouped, tests of two groups are measuring the same factors, then the mean of correlations between the groups will lie between the mean of correlations within one group and that within the other. Thus if the inventories or questionnaires measured the same personality factors as the fluency tests, the mean of correlations between all the inventories and all the fluency tests would lie between the mean of correlations among the inventories and the mean of correlations among the fluency tests. Correlations of the type FI would lie somewhere between those of the type FF and those of the II type. In Table 2 there are ten partial correlations of the FF type, 28 of the II type and 40 of the FI type. Taking the mean in each case, we have the following result :

Mean FF correlation = 0.30

Mean FI correlation = 0.11

Mean II correlation = 0.58.

These figures mean that there is more in common among fluency tests, and among inventories than there is between fluency tests and inventories. We have our first indication of the nature of the answer to one of our questions. Fluency tests are not, in this case, measuring the same thing as the inventories.

Using the same technique to compare the perseveration tests with the inventories, we have :

Mean PP correlation = 0.21.

Mean PI correlation = 0.14

Mean II correlation = 0.58.

⁶ W. P. Alexander : " Intelligence Concrete and Abstract ", *Brit. J. Psych. Monog. Supp.*, 1935, pp. 64-5.

And again we conclude that perseveration tests and the inventories do not measure the same thing.

Similarly for the fluency and perseveration groups :

Mean FF correlation = 0.30

Mean FP correlation = 0.12

Mean PP correlation = 0.21.

Once more we notice the independence of the two groups of tests.

A more definite answer to the questions which this simple procedure answers tentatively will be given by the multiple factor analysis.

Factorial Analysis for all Twenty-one Variables. The factorial analysis is made in two stages :

- (1) The factoring of the matrix of partial correlation coefficients by the Thurstone centroid method, and
- (2) the rotation of the centroid axes to primary axes where they may be given psychological meaning.

The present correlational matrix (Table 2 below diagonal cells) was factored by the centroid method. As a factor was extracted, the amount of variance for which it was responsible was removed from each element of the matrix from which it was derived. At each of these steps the residuals were examined to find whether they contained sufficient of the variance to warrant the extraction of further factors.⁷ The fourth factor residuals were small enough for their contributions to the correlation coefficients to be ignored in the subsequent rotations of axes.

The question as to when the extraction of factors should cease has always been a controversial one. It has been shown that merely examining the residuals is a help, but hardly adequate. Ledyard Tucker suggests an empirical criterion which Thurstone has adopted. This rule is that when all the significant factors have been obtained so that only chance

⁷ L. L. Thurstone : " Primary Mental Abilities ", *Psychometric Monog.*, Chicago, 1938, p. 61.

variation remains in the residuals, then an empirical criterion φ takes a limiting value. The rule is given by the relation

$$\varphi = \sqrt{\frac{\Sigma P_{s+1}}{\Sigma P_s}} = \frac{n-1}{n}$$

where n is the number of variables in the correlation matrix, ΣP_s is the sum of the absolute values of the residuals after s factors, and ΣP_{s+1} is the sum of the absolute values of the residuals after $s+1$ factors. If the relation of the above equation holds, then there are s significant factors in the correlation matrix. (It should be noticed that the summations include the diagonal terms.) "Fortunately the criterion is independent of the standard errors of the given correlation coefficients. It seems to reach the limiting value when the residual matrix of order $n \times n$ represents a configuration that is of approximately equal extension in n dimensions."⁸

The application of this criterion to the present data shows that four factors are all the significant ones which may be drawn.

Interpretation of the Factors. After rotation of axes, the loadings of each test for each factor were examined with a view to determining the nature of the factors. The first factor had high loadings with each of the personality inventories and insignificant loadings with all the other tests. Its loadings with the scales F1-C, B1-N, B3-I, B4-D and the Personal Inventory were particularly high (0.99, 0.98, 0.93, 0.86 and 0.86 respectively) while it had significant relations with the Allport A-S and B2-S. It had, too, a small but probably significant relation with the intelligence test (0.25). The factor seemed to be almost exactly Flanagan's F1-C or "confidence in oneself". Looked at another way, both this factor and Flanagan's represent the general factor from among the personality inventories. This factor contributed 24.6% of the total variance.

The second factor, which contributed 10% of the total variance, is almost entirely a fluency factor. Its high loadings were with the five fluency tests, and, as would be expected,

⁸ *Ibid.*, pp. 66-67.

with the free association test of the clerical group. The next largest loadings shown by the factor were -0.353 on the B2-S scale and -0.203 on the B3-I scale. These loadings are of some assistance in trying to determine the relation of fluency tests to personality traits. Persons scoring low on the B2-S (Self-sufficiency) scale are said by Bernreuter to dislike solitude and often seek advice and encouragement. Those scoring low on the B3-I (Introversion) are extraverted; they rarely worry, seldom suffer emotional upsets and rarely substitute day-dreaming for action. The suggestion then is that the fluency factor is correlated with an extraverted reaction pattern. Here is some justification for Cattell's claims. The difficulty seems to be that neither extraversion nor surgency is a homogeneous trait.

The third factor (accounting for 9% of the variance) was designated by Flanagan's term "solitariness" because of its high loadings with the F2-S and B2-S scores, and nearly negligible loadings elsewhere.

The fourth factor isolated, which contributed 7.5% of the variance, was called "A", since it derived mainly from the tests of the clerical battery and from the perseveration tests. The designation "A" was chosen to suggest "concentration of attention", whatever that may involve. The one element which was common to all the test tasks showing a significant correlation with this factor, seemed to be an ability to give undivided attention, to concentrate on the job in hand.

Any significance this factor may have for personality traits is suggested by the negative correlation with the B4-D scale. It would appear that the person doing well in the clerical tests does so because of his ability to concentrate, and that this ability is related with the submissive attitude in social situations. One can, however, hardly claim for this factor the status of a personality trait.

In summary, then, this analysis yielded three factors of interest for the present study. In interpretation these factors seem to be (1) a general factor among the inventories—probably that called by Flanagan "Self-confidence"; (2) a second factor from the inventories—probably Flanagan's factor of "Solitari-

ness"; (3) a fluency factor which has a suggestive relation with extraversion but cannot be identified with it.

Factorial Analysis after Elimination of the Bernreuter Scales. While this analysis of the variance due to all twenty-one variables was of some value, it left a good deal to be desired. Four factors were all the significant ones which could be drawn, and yet they did not seem to account for the variance of some tests at all. While the variance of some of the scales of the Bernreuter and of the Personal Inventory had been completely accounted for, some of the fluency and perseveration tests had nearly the whole variance still unanalysed. The only conclusion one could reach was that the duplication of material in the questionnaire scales was responsible for very high test intercorrelation, which was exaggerated when entered also in the diagonal cells. This heavy group of tests seemed to hide a number of the points of interest. Rather than repeat the analysis substituting calculated communalities for the abnormally high guessed ones, it was thought more logical to eliminate the Bernreuter scales altogether. A new analysis was then made of the remaining seventeen variables.

This analysis also was made using the partial correlation coefficients which held constant the influence of age. Again the Thurstone centroid method was employed. Under these conditions six factors were extracted which together accounted for 52% of the total variance. The centroid matrix for these six factors is shown in Table 4. The last column of this table shows the communality (h^2) for each test.⁹

Rotation of Axes. Following Thurstone's procedure, these centroid axes have been rotated with a view to the achievement of meaningful factors. The method of rotation adopted was that used by Thurstone in his "Primary Mental Abilities". This is a graphical method applied in one plane at a time which is probably the method most easily comprehended. Throughout the rotation the orthogonality of the axes has been retained. It seemed wiser and more profitable to seek independent factors even though these might be less easily named than oblique axes

⁹ The communality (h^2) is the amount of the test variance attributable to the common factors isolated. h^2 =sum of squares of factor loadings.

TABLE 4.
Factorial Matrix. Centroid Axes.

Code No.	Test.	I	II	III	IV	V	VI	h ^a
1	Allport A-S ..	371	-390	-158	293	-196	271	511
2	Personal Inventory ..	-547	696	-160	250	162	097	907
3	F1-C	-418	785	-135	186	-132	197	900
4	F2-S	048	122	296	-346	-290	292	394
5	Otis	371	-155	406	-363	-133	-200	516
6	Substitution C1 ..	346	337	298	298	191	266	519
7	Spelling C2	311	147	512	-201	166	093	458
8	Free Assocn. C4 ..	483	235	228	196	246	-157	464
9	Concentration C6 ..	329	217	290	255	207	160	373
10	Pictures F1	403	154	-202	124	-299	-407	497
11	Word Series F2 ..	632	271	104	156	-350	-326	735
12	Forms F3	483	187	-487	-448	170	112	748
13	Topics F4	279	255	-069	-004	-308	330	352
14	Ink Blots F5	385	177	-440	-152	-188	-066	435
15	$\pm \infty$ P2	315	124	-212	-208	347	-107	333
16	$\pm Z$ P6	109	132	-276	290	250	008	252
17	Sex M.	144	-298	046	-339	278	-378	447

Plus signs and decimal points omitted.

and correlated factors may have been. However, the naming of factors is of little importance; the really significant thing is to establish independent axes of reference which shall be as few in number as possible.

After several rotations had been made, each with the intention of maximising the number of zero or nearly-vanishing entries in the factorial matrix, the matrix shown in Table 5 was obtained. This position of the axes gave a close approximation to what Thurstone has called *simple structure*,¹⁰ and presented factors to which an interpretation could be given.

The psychological nature of these factors will be clearer to the reader if the matrix of Table 5 is reconstructed having ciphers in each cell which now has a nearly-vanishing entry. This has been done in Table 6. In these tables the factors have been placed in the order of their contribution to the total variance.

Interpretation of Factors. The reader will have noticed that in Tables 5 and 6 the orthogonal axes have been designated by letters rather than by Roman numerals as previously.

¹⁰ For the definition of simple structure, see L. L. Thurstone, "Vectors of Mind", pp. 150-151; and for a good discussion of its implications, G. H. Thomson, "The Factorial Analysis of Human Ability", pp. 242 ff.

This has been done for purposes of simplification. The letters chosen are such as to suggest the psychological nature, so far as that can be judged, of the factors represented.

TABLE 5.
Factorial Matrix. After Rotation of Axes.

	E.	A.	V.F.	P.F.	C.	S.
1. A-S	060	160	050	010	-690	015
2. P.I.	650	000	-235	-065	606	235
3. F1-C	782	030	-025	-015	535	015
4. F2-S	062	080	090	045	090	-606
5. Otis	-520	105	325	008	000	-350
6. C1	133	692	-010	-030	062	-035
7. C2	-300	460	032	020	195	-330
8. C4	-181	570	218	035	112	182
9. C6	022	610	030	-052	046	000
10. F1	020	035	650	130	-070	250
11. F2	-026	350	772	055	-040	062
12. F3	-047	065	092	850	-032	012
13. F4	353	215	210	220	-140	-270
14. F5	121	-032	366	505	-120	090
15. P2	-215	145	012	468	118	200
16. P6	150	190	-070	145	-021	420
17. Sex M.	-620	-135	005	132	042	112
Contribution to Total Variance	12%	9.9%	8.4%	7.8%	7.3%	6.3%

TABLE 6.
Factorial Matrix. Reconstructed to Reveal Simple Structure.

	E.	A.	V.F.	P.F.	C.	S
1. A-S	0	0	0	0	-690	0
2. P.I.	650	0	-235	0	606	235
3. F1-C	782	0	0	0	535	0
4. F2-S	0	0	0	0	0	-606
5. Otis	-520	0	325	0	0	-350
6. C1	0	692	0	0	0	0
7. C2	-300	460	0	0	0	-330
8. C4	0	570	218	0	0	0
9. C6	0	610	0	0	0	0
10. F1	0	0	650	0	0	250
11. F2	0	350	772	0	0	0
12. F3	0	0	0	850	0	0
13. F4	353	215	210	220	0	-270
14. F5	0	0	366	505	0	0
15. P2	-215	0	0	468	0	200
16. P6	0	0	0	0	0	420
17. Sex M.	-620	0	0	0	0	0
Contribution to Total Variance	12%	10%	8.5%	8%	7.25%	6.25%

Total: 52%.

Plus signs and decimal points omitted in both tables.

The factor E has high positive loadings with both the Personal Inventory and with the F1-C scale. It has high negative loadings with both masculinity of sex and the intelligence test. The relation with Spelling Correction very likely depends upon the element of intelligence. But the weights of the one Fluency test and the Perseveration tests are suggestive, though they can be given no reliable interpretation here. It is suggested that this is the factor of Emotional Instability which has appeared in other studies. It must be confessed that such an interpretation rests largely on outside evidence so far as this particular analysis is concerned. Strictly, one might only say that this is a factor common to the Personal Inventory and to F1-C and femininity. It was to try to define this factor, and others, that an analysis of the Personal Inventory was undertaken. If that analysis may be anticipated a little this factor can be called Emotional Instability or E. Its associations with femininity and with lower intelligence are of considerable importance. This is so particularly for intelligence when one recalls the homogeneity of the group for this ability. It is not possible, however, to predict that, with a greater spread of intelligence, the association between factor E and intelligence would be greater. It may rather be that only within the highly selected population of the university is lower intelligence associated with greater emotional instability.

Factor A is of little interest for present purposes. It derives almost entirely from the tests of the clerical battery. These tests were Substitution, Concentration, Free-chain association, and Spelling Correction. The psychological ability common to these tests, and to the fluency tests called Word-series and Topics, seemed to be an ability to give concentrated attention; and, perhaps, a certain facility of association. This description is unsatisfactory, but little else could be expected since the test battery was not designed to throw any light on this group.

The next two factors are both determined mainly by the fluency tests. Both can, therefore, be called Fluency factors, but an attempt must be made to show the differentiation between them. The one which has its greatest loading with

the word-series fluency test suggests a Verbal Fluency factor. Its associations with the Otis Test score and with Free-association harmonise well with such an interpretation. On the other hand, the high loading of the Pictures fluency test and the significant loading of the Ink Blots fluency test are not completely contradictory. The pictures test would depend to quite a large extent on a verbal facility. There is little logical control imposed by the picture. It is a completely different process from that of Completing Forms, for example. That difference seems to lie in the greater importance of names or words in the Pictures test. Much the same might be said of the Ink-Blots, though there the verbal facility is one factor only. It is added to a visual imaginative or pictorial ability.

This, it is suggested, is the second fluency factor which has been called P.F. Its greatest weight is with Completing Forms—which is to be expected. And it has a significant weight with the Ink-Blots test. The considerable weight with the Perseveration test (P2) which consisted of alternating $\pm$ and ∞ is difficult to explain, though it is not inconceivable that a Pictorial Fluency would materially affect the manipulation of these symbols.

There is nothing as yet to suggest that fluency tests of either kind measure personality traits, as they are measured by the questionnaires. The fact that the Personal Inventory shows a correlation with the factor V.F. suggests only that a certain verbal facility is to be found among persons making more stable scores on the Inventory.

The fifth factor has been called C because it seems to be most like Flanagan's factor F1-C 'lack of confidence in oneself' or self-consciousness. Such an interpretation will account for the weight shown by the test F1-C, with some reservations. There can be no denying that a good many of the questions of the Personal Inventory are of the "self-consciousness" type. And the relation with "Submissiveness" as measured by the Allport test points in the same direction. It must be asked, of course, why, if this is the factor F1-C, the test F1-C has only a medium loading upon it. The answer is nowhere apparent in this matrix, but other studies suggest the reason is that Flanagan's test F1-C is not unitary. It was derived

from *a priori* scales, themselves not unitary, and may very well involve several personality traits. The heavy weight it shows here with factor E indicates this is the case. One further point needs to be raised. This factor C does come very near Guilford's factor of Dominance, or rather the negative aspect of dominance. If that is the case one might expect from Guilford's work a relation with sex. That relation, however, fails to appear. Whether or not the calculation of further factors would affect this result is not known.

Finally, Flanagan's scale F2-S which measures "Solitariness" or "non-social personality" has a significant loading with only one factor, and seems, in fact, largely to determine that factor. Therefore, this sixth factor has been called S or Solitariness. There is no other test loading to confirm this interpretation unless, in view of further work, the weight of 0.235 shown by the Personal Inventory can be regarded as confirmation and that may only be if Solitariness is akin to Shyness. Again, the relation with intelligence is interesting but must be interpreted with care. The suggestion is that within this group of 200 students those showing less intelligence are also the more social or less self-sufficient. There seems to be some association between "sociability" and high perseveration. However, in view of the fact that Cattell claims that high perseverators are cruel, spiteful, wilful, rebellious, intractable, sensitive, dreamy, sentimental and liable to long periods of depression,¹¹ no conclusions are justifiable. The only other significant correlations are with two fluency tests, but since one is positively correlated and the other negatively, again no conclusion may be drawn.

Summary. The correlational matrix which had the four original Bernreuter scales removed yielded six factors to the Thurstone technique of factorial analysis. A tentative interpretation of those factors suggested that they are : (1) Emotional Instability ; (2) Lack of self-confidence, or Self-consciousness ; (3) Solitariness or Shyness ; (4) a factor of concentration or attention, and two fluency factors, the one (5) verbal fluency,

¹¹ R. B. Cattell : " Temperament Tests in Clinical Practice ", *Brit. J. Med. Psych.*, 16, 1937, pp. 43-61.

to be found where words are important; and the other (6) pictorial fluency, found where pictorial or visual imagination seems most important.

It is now plain just how much has been gained by the elimination of the Bernreuter scales. The analysis which included them yielded a factorial picture which approximated to the simple picture of Flanagan. But with their removal further factors have become practicable and the tests have shown themselves more complex. The factor previously interpreted as a "general factor from among the inventories" has proved to be complex. The fluency factor of the original analysis has become two factors. Only the factors of "Solitariness" and "Concentration" have retained much the same interpretation.

From both the mathematical and the psychological points of view this second analysis is preferable. It provides a good deal more information about the tests and falls still further into line with studies previously made by Guilford and with the analysis of the Personal Inventory made later.

CONCLUSIONS.

When the results of both these analyses are taken into account it becomes possible to offer more or less definite answers to questions posed earlier in this paper. The work done has thrown into clear relief the relationships existing in this heterogeneous collection of tests. It is possible now to say that the Bernreuter scales, except F1-C and F2-S, are not independent. It would seem, in fact, that probably three factors are operative in the Bernreuter questionnaire. It may well be, in view of other work, particularly that of Guilford, that there are more than three factors. But whatever the final number, it is certain that the factors or the "traits" determined by factorial analysis will not be identical with neurotic tendency, introversion, self-sufficiency and dominance, which are "traits by fiat" only.

The Personal Inventory, too, has revealed its complexity. The suggestion is that its score depends upon at least three traits; viz. emotional instability, self-consciousness or submissiveness, and solitariness or social introversion. In order to

verify this conclusion as to the complexity of the inventory a factorial analysis has been made of the item intercorrelations.¹² Another interesting suggestion may be made as a result of the correlation between Personal Inventory score and Verbal fluency. It is that there may be some language difficulty in this questionnaire, which shows itself because of the relatively few questions, whereas it is not evident in the other questionnaires where more questions are asked and many simple questions are heavily weighted.

The Allport A-S test has shown itself rather more unitary in its measurement of Dominance-Submission. But one must observe that only half the variance of this test has been accounted for. This means that only half its variance is shared with other tests of the present collection. Since it could never be claimed that these tests sample all personality traits it may well be that the A-S test involves other traits too, as yet unidentified.

Remembering that the present group of tests was not selected specifically to put the fluency tests on trial, certain tentative conclusions might be drawn. This type of test does seem to involve association and other cognitive abilities rather than personality traits, but it is not entirely independent of personality. Cattell¹³ has claimed that fluency tests measure Surgency. Characteristic of Surgency are cheerfulness, sociability, adaptability and hastiness. Desurgency is characterised by formality, unsociability, earnestness, conservatism, and introspection. Only the Topics fluency test offers any verification of these claims. A high score on that test is associated with emotional instability; and a low score is correlated with solitariness or social introversion. Just what are the implications for personality measurement of the fluency factors themselves it is not possible to say. The low intercorrelation among fluency tests, and their division into at least two clear-cut, independent, factors suggests that a good deal more work is required before we can know just what these tests measure.

¹² To be published in the next issue of this Journal.

¹³ R. B. Cattell: "A Guide to Mental Testing", 1936, Univ. Lon. Press.

Cattell¹⁴ has claimed a close correlation between Perseveration test score and character traits. High perseverators were said to be resigned, spiteful, wilful, jealous, aggressive, intractable, nervous and fearful, sensitive, dreamy and liable to long periods of depression. Low perseverators were believed to be anxious, excitable, stubborn, masterful, enterprising, self-reliant, selfish, impetuous and active. Plainly, the great majority of these behaviour characteristics have been included in the questionnaires. And yet the "p" tests show no very significant correlation either with the questionnaires or with the factors derived from this study. Both the perseveration tests do show significant correlations with the factor "S" or Solitariness which does fit part of Cattell's picture. That there is no significant correlation with the factor "C" or Self-confidence or Dominance is not surprising since Cattell claims aggression for high perseverators and masterfulness for low perseverators. But the opposite loadings of the two perseveration tests on the factor of Emotional Instability cannot be explained.

Before dismissing the results of this study attention should be drawn again to the parts played in this battery by the variables Sex and Intelligence. Femininity of sex seems to play a very considerable part in the determination of our factor of Emotional Instability. The meaning of such a relation is that, within this University group, the women tend to be less emotionally stable than the men; that is, they tend more to react with emotion to life situations, are more readily excitable, and so on. The size of the correlation coefficient is such as to suggest a marked sex difference.

The interesting and significant correlations shown by the intelligence test are with Emotional Instability and Solitariness. In either case the lower intelligence is associated with the higher degree of the trait. The less intelligent members of the group show more emotional reactions to their environment, and show, too, less solitary or self-sufficient behaviour; they tend more to seek company and rely on others to carry their burdens.

¹⁴ *Ibid.*

There would be a danger in generalising from these results concerning the rôle of sex and intelligence in the determination of personality traits. General observation suggests that in a group less homogeneous as to intelligence the same relations would hold good; but general observation is notoriously misleading and further controlled experiment is required.

The primary aim of this study has been to isolate unique traits of personality. Some facts have emerged which contribute, in part, to this aim.

Finally, it is inevitable that a research study such as this should have implications for the general field of which it is a part. Something has been learned about the measurement of personality. As far as the work has gone it suggests unique traits can be measured. The Flanagan scales attempt just that, but they probably measure constellations of traits. There seems no reason, however, why more finely differentiated traits should not be measured similarly.

The indications are that, at present, questionnaires most effectively measure personality traits. It is evident, however, that "fluency" tests measure at least two independent factors, but whether or not they measure personality traits as we have defined them is indeterminate. The discovery of what, exactly, fluency tests measure remains for the future. Biserial correlation coefficients between fluency score and answers to inventory questions may throw some light on this problem.

THE MEANING OF GOOD.

By JOHN ANDERSON.

DISCUSSING in *Principia Ethica* (ch. I, § 5) the question how 'good' is to be defined, G. E. Moore considers it "impossible that, till the answer to this question be known, anyone should know *what is the evidence* for any ethical judgment whatsoever . . . the main object of Ethics, as a systematic science, is to give correct *reasons* for thinking that this or that is good ; and unless this question be answered, such reasons cannot be given" (italics in text ; so in all subsequent quotations). It may be questioned, indeed, whether the giving of reasons depends on definitions ; but at least we may argue that one of the main obstacles to the development of ethical science has been the difficulty of getting formal proof of ethical propositions—and perhaps we should add that the difficulty has been increased by acceptance of the doctrine that Moore goes on to uphold, that good is indefinable.

A question that confronts the ethical inquirer at the outset is whether there is a single sense of "good" or, allowing that there are several, whether one can be selected as fundamental to ethics—whether, in fact, there is such a subject as ethics. No one can deny the existence of "moralities" or codes, bodies of rules "recognised" (and backed, to varying extents, by "sanctions") in societies or groups. But the use of such expressions as "legal ethics" and "medical ethics" gives us no ground for believing in ethics in general ; the description of adherence to a given code as "good" and breach of it as "bad" is quite compatible with the denial of any absolute goodness or badness. In such cases, it may be argued, the group is concerned to maintain certain types of activity and takes as good whatever is favourable to them and as bad whatever is unfavourable (or, it might be said more broadly, the group takes

as good and bad, respectively, what it supports and what it opposes); but such attitudes vary from group to group, and lend no colour to the treatment of things as good or bad in themselves.

Now this position of "ethical relativism" is quite widely accepted. According to it, we may say, "ethical" statements are incomplete; they signify *relations* one term of which has not been stated. Such abbreviations are common features of discourse and are obviously convenient. Equally obviously, they can lead to a great deal of confusion when the term "understood" by one party to a discussion is not the term "understood" by the other—and it is not only in the "ethical" field that such confusions occur. In this way people may be led to think that they are in agreement when they are not or to think that they are in disagreement when they are not. Thus (as Moore particularly stresses in his other book, *Ethics*) if the unstated term in any person's moral judgments is *his own* feelings, if his attaching a moral predicate to a certain subject means that *he* has certain feelings in relation to that subject, it would appear that two persons could never pass contradictory moral judgments. One might say "X is right" (or "Y is good"), and the other might say "X is not right" (or "Y is not good"), but they would be dealing with different issues. Each person would have his own moral terminology, and the apparent contradiction would imply no real contradiction in *any one terminology* of the common belief (shared by Moore) that the same action cannot be both right and wrong or the same thing both good and bad. It will still be possible, moreover, to translate any of the assertions into a common terminology; and if you say "X is the object (or occasion) of certain feelings in *me*", there will be no logical objection, whatever objection there might be on the score of politeness, to my contradicting you, to my believing that X is *not* your sort of right or your sort of good.

But if there can be definite disagreement once the relation in which X is supposed to stand ("pleasing you", let us say) has been clearly stated, this does not explain, it may be said, how *confusion* can ever arise, how I could ever imagine that "X is not

right", in my terminology, contradicts "X is right", in yours. And, indeed, one may doubt whether confusion would ever arise if the omitted term were merely the feelings of the speaker. But the fact that people really think they are contradicting one another when they say "X is right" and "X is not right", certainly gives us no ground for attributing rightness to X in itself, for denying that a relation to something unspecified is involved. The point can be illustrated from a set of cases, viz. gustatory differences, in which the primary reference is to the state or attitude of the speaker. A says "Oysters are nice"; B replies "No, they are nasty". Here B is not denying that A *likes* oysters, but he takes A to have asserted more than that, to have implied, at least, that oysters are a *proper* object of liking—and this B denies. He is contending, in other words, that A is wrongly constituted, "abnormal"; he is appealing to a set of normal likings which A's particular taste contravenes. It is possible, of course, that A was merely expressing his own taste (though in that case he might have been expected to say "I like oysters"); if so, B was not really contradicting him. But it is also possible that A and B were expressing opposite views of the relation of a given taste to the "normal".

We can now see how there can be confusion of issues, even though no question of what X is in itself (its qualities as contrasted with its relations) is involved—from the fact, namely, that many different terms may be "understood" in such judgments. And not only is there this variety of reference, but a particular reference, what it is that sets the standard we are upholding in a given case, may be far from definite. In general, as already suggested, the reference is to some institution or "movement"; the question is what forms of activity support or are supported by it. But social movements are not cut off from one another, and even the most well-marked movement has not a thoroughly worked out code but (like the most completely "codified" legal system) has its contradictions and unsolved problems; its policy, moreover, can change, and likewise the individual can change his adherences. Thus the judgments of A or B can have considerable uncertainty of reference, and even comparative certainty of reference does not imply a corres-

ponding certainty of judgment. But this very uncertainty will make men *more* inclined to use an expression like "right" in an unqualified way; however vaguely the matter presents itself to them, they feel the pressure of "codes" and the urgency of adherence, and they are impelled to communicate this urgency to others without being able to indicate any precise ground for it.

Also, perhaps, without being willing—there is a dialectical advantage in ignoring the multiplicity of movements (or sources of norms); when we tell a person that some action is simply "right", we represent it as favouring what he recognises as well as what we recognise, and, even if he remains uncertain about this, we at least confuse his mind so long as he has made no formal search for the missing terms. A common way out of the difficulty is, of course, to set up "society" as the single, ultimate determinant of what is correct or proper in behaviour. But it is not very hard to see that this is an evasion, that unqualified "social necessity" is on the same footing as unqualified "right", that it is a means of concealing the *opposition* of forms of social organisation, that the delineation of a general "movement of society", and the derivation from it of "norms" of behaviour, have not been carried out. It is one thing to recognise, as an outstanding feature of political life, the establishment of working arrangements among divergent movements; it is another thing to allow a postulated social unity to dictate to the social facts, to argue, as Idealists do, that there *must be* a unity "behind" the differences. To adopt this position is, theoretically, to abandon the problem of finding the "justification" of any specific form of action and, practically, to pass off some particular movement as "the whole" and so protect it from criticism.

These considerations apply to Moore's discussion (*Ethics*, chs. III and IV) of "the objectivity of moral judgments". With reference to the view that each man's judgment of rightness is a judgment about *his own* feelings towards the given action (so that the judgments of two different men would never contradict one another), Moore maintains (p. 102) that, if we look at the question fairly, we must admit that such contradiction sometimes

takes place, "that both men may use the word 'right' to denote *exactly the same* predicate, and that the one may really be thinking that the action in question really has this predicate, while the other is thinking that it has *not* got it". How we go about "looking at a question fairly" is not indicated; but, if we allow that the two men could be referring to the same movement, it is clear enough that they could differ as to its "requirements"—though it is another question whether the point of their difference should be referred to as a "predicate" of the action. It is also possible, however, that they are referring to different movements; and it is on account of his ignoring of the multiplicity of movements that Moore's treatment of the question of a *social* reference fails.

Considering first the view that judgments of rightness are really concerned with the feelings prevailing in the society to which the person judging belongs, and noting that this would make contradiction on such matters between members of different societies impossible, Moore admits that it would be possible, on this view, for members of the same society to differ about the rightness of an act. But, he argues (p. 111), there is a fatal "psychological" objection to the view. "For, whatever feeling or feelings we take as the ones about which he is supposed to be judging, it is quite certain that a man may think an action to be right, even when he does *not* think that the members of his society have in general the required feeling (or absence of feeling) towards it." To admit this, however, is not to get rid of the social reference. A man may consider, e.g., that he is acting rightly in going on strike, although most members of the society in which he lives are opposed to his action, but he may still take its rightness to consist in the fact that it serves a particular "cause" or movement. And similarly, even if we accept Moore's objection (pp. 142, 143) to the theory, which he thinks is often assumed without being expressly stated, "that to call an action right or wrong is the same thing as to say that an absolute majority of all mankind have some particular feeling (or absence of feeling) towards actions of that kind"—the objection, namely, "that it is quite certain, as a matter of fact, that a man may have no doubt that an action is right, even

where he *does* doubt whether an absolute majority of all mankind have a particular feeling (or absence of feeling) towards it, no matter what feeling we take"—we can still take the man's judgment of the act as involving reference to a movement, perhaps a movement which is not limited to any particular society or age but can be regarded as running through human history, but at least a movement which is not identical with that history as a whole and which may at all times be a minority movement.

To say that Moore has failed to prove that judgments of the rightness of actions are not assertions of the requirements of some way of living (or of the policy of those who live in that way) is not, of course, to say that they do assert such requirements. And even if the expression "right" were commonly employed in that sense, it might have another sense which did not involve varying references. But the question would still be whether it involved *some* reference, whether it signified a relation to an unstated term (which might be the same in every instance) or signified a quality, something which really belonged to some subject *itself*. The latter position will hardly be maintained; it is apparent that, in any usage, to say that an action is right is to say that it "is to be done", and that this raises the question *on what consideration* it is to be done. Now, as we have seen, this consideration may be a particular movement, i.e., it is the movement that "calls for" the action—but this is really to say no more than that the action does (or would, if performed) further the movement. Or it may be said more generally that the rightness of the action is its furthering *something*—something that can be agreed upon by the people who use the word "right"—but that, if no such thing were agreed upon or assumed to be agreed upon, the word would never be used.

Here it may be objected that justice is not being done to the conception of what "is to be done" or, more exactly, what "ought" to be done, that the question can always be asked, in regard to my action in furthering anything, "Ought I to further that?" But the assertion that I ought to perform some action, or that the action is binding on me, requires supplementation; it has still to be shown on what consideration it is binding. The

notion of that which is unconditionally binding on me falls with every other notion of "that whose nature it is to have a certain relation", viz. in that it treats a relation as if it were a quality. And if it is argued that the consideration in question is goodness, that it is my duty to promote what is good, the answer is that the assertion that certain actions promote good still gives no meaning to the contention that it is "my duty" to perform them—no meaning other than that they do promote good.

It could still be held that good is the unstated but constant term in judgments of rightness—such at least as are relevant to the science of ethics. And Moore follows this line in maintaining that the right action (the one which, in his view, it is my duty to perform) under given circumstances is that which, of all the actions "possible" to me in the circumstances, would have the best total consequences. But, apart from the peculiar difficulties of this formulation (the conceptions of "possible" actions and of a *scale* of goodness, the fact that the impossibility of calculating "total" consequences leaves us, as in the previously mentioned cases of unqualified right and unqualified social necessity, with the choice between uncertainty and dogmatism), it may be remarked in general (*a*) that it has not been shown that the promotion of goodness is not the furthering of a social movement, (*b*) that good might be treated as simply one example of an unstated term (something which can be furthered), the stating of which would render definite an issue of "right and wrong", (*c*) that good also is commonly treated as a term of varying reference.

In this connection it was said earlier that people might take as good what is favourable to certain types of activity, without its being implied that anything is good in itself. But if so, it may be asked, what do they take it as? Is it merely meant that they take what is favourable as *favourable*? The point would be that they use "good" (like "right") as an abbreviation, the term of reference (what is favoured) being "understood". Now there is no doubt that the expression has relational uses; and all that Moore, in particular, maintains is (p. 162) that "to call a thing 'good' does not *always* mean merely that some mental attitude is taken up towards it"—or, he would

argue similarly, that it contributes to some social movement. But his account of an alternative usage is unfortunate for his case. He appeals to judgments of "intrinsic value", to the judgment concerning a particular state of things "that it would be worth while—would be 'a good thing'—that that state of things should exist, *even if nothing else were to exist besides*, either at the same time or afterwards. We do not, of course, so constantly make judgments of this kind, as we do some other judgments about the goodness of things. But we certainly *can* make them, and it seems quite clear that we mean *something* by them. We *can* consider with regard to any particular state of things whether it would be worth while that it should exist, even if there were absolutely nothing else in the Universe besides; whether, for instance, it would have been worth while that the Universe, as it has existed up till now, should have existed, even if absolutely nothing were to follow, but its existence were to be cut short at the present moment: we *can* consider whether the existence of such a Universe would have been better than nothing, or whether it would have been just as good that nothing at all should ever have existed" (pp. 162, 163).

The contention that it is not the same thing to say that somebody is pleased at the idea of X or desires X for its own sake and to say that it would be "worth while" that X alone should exist, is one that few would contest. But the usage "it is good that" cuts across the conception of "intrinsic" goodness, of a thing's being good *in itself*. We say "This is red" or "This is spherical"; but it would be nonsense to say "It is red that this, and this alone, should exist" or "It is spherical that this, and this alone, should exist". The assertions, "This is good" and "It is good that this should exist", are intelligible (and compatible) *only* if we take a relational view of goodness—only if they have some such meaning as "This is demanded (or commanded)" and "It is demanded (or commanded) that this should exist". If, on the other hand, we regard good as a quality, as characteristic of a thing without further reference, then "It is good that this should exist" has no meaning. And, in this connection, the question what we should think of the

thing if it made up the "Universe" is quite pointless ; the sole issue is whether it has this particular quality, no matter what other things exist—though certainly it would not have any quality, it would not exist at all, except in an environment.

In fact, Moore's "large" way of treating the matter enables him to dodge the question "quality or relation?" ; it enables him vaguely to suggest relations, without committing himself to the view that they are inherent in goodness. Thus, in spite of his rejection of the identification of being good with being desired, he speaks (p. 237) of a thing's goodness as a "reason for preferring" it, and, as we shall see, a similar confusion runs through *Principia Ethica*. And, on the face of it, to call a thing "worth while" is to say that it has some relation. But, if so, this may be, for all Moore shows, the relation of being the object of a certain mental attitude. It may be true, he is prepared to concede (*Ethics*, p. 166), "that there really is some very special feeling of such a nature that any man who knows that he himself or anybody else really feels it towards any state of things cannot doubt that the state of things in question is intrinsically good". And if any one should maintain that when we call a thing intrinsically good we mean merely that *this special feeling* is felt towards it, "the only obvious argument" Moore can find against that view "is that it is surely plain that, even if the special feeling in question had *not* been felt by any one towards the given state of things, yet the state of things *would* have been intrinsically good". Now, if "intrinsically" means "qualitatively", the obvious and conclusive argument is that a quality is not a relation ; but if it can have some relational meaning instead (or as well), then Moore's point is not "plain" at all. And his subsequent, less obvious argument from considerations of "duty" falls with that conception. There are, then, still the two possibilities (a) that good is a quality, (b) that "X is good" asserts a relation, one term of which is "understood"—leaving it an open question whether the missing term is "feelings" or something else.

It is important to observe that a person who denies that there is any quality, goodness, and asserts that "good" signifies a relation to something, e.g. to feelings, even to the feelings of

the speaker, is not thereby denying the "objectivity" of moral judgments. (Presumably the class of judgments containing abbreviations like good and right could still be distinguished as *moral* judgments.) The question whether X causes pleasure in me is (assuming that an unambiguous meaning can be given to "pleasure") just as objective, just as much a question of fact, as the question whether X is red. Briefly, relations are as objective as qualities. Thus the economist can make objective statements about "goods" (commodities) while recognising that, to be a commodity, a thing has to be demanded by a person, that nothing is a commodity *in itself*. It has, no doubt, been argued that certain things are of necessity commodities—the "necessaries of life", the things that everybody demands or, at least, requires. But this further point does not prevent our using the conception of objects demanded, and recognising that the things a person demands, though other people do not, are "goods" in exactly the same sense as are objects of general demand. Again, many economists speak of "welfare"; they treat certain things as the *proper* objects of demand. But this can only mean either that these things, whether they are demanded or not, have some quality, or that the economists (and others) demand that people should demand these things. And these questions—the question of the demand for "goods" in some qualitative sense, and the question of demands for demands—can be fruitfully considered only if the initial, relational usage is quite clearly maintained, only if we are able to speak, with no presumption as to its own character or further conditions, of *that which some one or other demands*.

It is here, however, that not only economists but ethical theorists fall into the most serious confusion. The outstanding characteristic of traditional ethics is the passage from the demanded to the *ultimately* demanded (that for the sake of which anything else is demanded) and the identification of the supposed "final end" with the good. The position can be illustrated from Moore's criticism, with special reference to Mill's *Utilitarianism*, of the Hedonistic principle "that pleasure is the only thing at which we ought to aim, the only thing that is good as an end and for its own sake" (*Principia Ethica*, § 39). This

is the view commonly described as "ethical hedonism" and distinguished from the view, "psychological hedonism", that pleasure is the only thing at which we do aim, the only thing that is an end; and one main point in Moore's argument is that Mill confuses these two views, that he derives "ethical" conclusions from "psychological" premises. But the position cannot be cleared up until the notions of "ought" and "good as end" are abandoned; their retention renders ineffective a considerable part of Moore's criticism of hedonistic doctrine.

Mill, says Moore, "has already told us (p. 6)¹ that 'Questions of ultimate ends are not amenable to direct proof. Whatever can be proved to be good, must be so by being shown to be a means to something *admitted to be good without proof*' [Moore's italics]. With this I perfectly agree: indeed the chief object of my first chapter was to show that this is so. Anything which is good as an end must be admitted to be good without proof". Now we should all agree that proof is from premises, i.e., from something which, as far as the given argument is concerned, is not proved—and, though a proof of it might be annexed, the *chain* of argument would take its departure from what we had not proved but simply believed. (This is not the place to contest the view that proof starts from the "self-evident"; but even those who believe this are not denying that the argument starts from something taken to be true and not derived from other propositions.) Thus, if we are proving something to be good, we must have a premise that *asserts* that something is good; we could argue that X is good because X is Y and Y is good, or because X is Y and Y is Z and Z is good, etc.—in any case, the assertion that anything of a certain sort is good is either a premise or derivable from a premise; i.e., "admitting something to be good without proof" is essential to the argument.

But we cannot agree with Mill and Moore in their further characterisation of the argument. What is required, in addition to the admission in question, is the assertion (or a number of assertions which imply) that X is of the given sort;

¹ The paging in Moore's references is the same as that in the ninth edition of *Utilitarianism* (Longmans, 1885).

to say that X is a *means* to something of that sort is entirely irrelevant to the proof of the required conclusion. We might say, indeed, that "Y is good" and "X is a means to Y" prove something, viz., that X is a means to something good; but how can this be taken to prove that X is good, let alone to be typical of the method by which *anything* can be proved to be good? If X were a means to Y and Y were red, we should not take this as giving any sort of proof that X was red. It is only on a relational view of goodness that the question of means to ends comes into the matter, only if, e.g., being good signifies being demanded that this "character" could be regarded as transferable from a given thing to what brings that thing about. Even so, of course, the proof would not be adequate if our information were merely that X brings about Y; given that Y is demanded, X would have to be taken as not only a means but the only means to Y if the passing on of the character of being demanded from Y to X was to be justified. Still, under these conditions, consideration of means would be relevant, though proof without reference to means (syllogistic proof from the premises that any Y is demanded and X *is* Y) would also be possible.

It may be contended that the above argument passes over the distinction, on which Moore insists, between being an end simply and being good as an end, or the distinction, which (§ 40) he accuses Mill of concealing in his use of the expression "desirable", between that which can be desired and that which ought to be desired or which it is good to desire. But the question is what Moore's "ethical" expressions can possibly mean—what can be meant by saying that X is good as an end or is that which it is good to desire. Is it meant, in the former case, that X is good *and* is chosen? If so, consideration of its being chosen is quite distinct from consideration of its being good—and this whether its goodness is a quality or another relation (for the presumption is that it is not the same relation, that being good as an end is different from merely being an end). Again, if it is meant that X merely *may be* chosen and that this would be a good

choice, then to say that choosing X would be choosing a good thing adds nothing to the characterisation of X as good and gives no justification for the carrying over of "goodness" from the chosen to the choosing. And this would be so even if it were always by being chosen that good things come about.

Moore, then, can give no meaning to "good as an end", and the same applies to his notion of the "desirable". This can scarcely mean that which is good *when it is desired*, for, as before, whether its goodness is a quality or a relation other than that of being desired, it would presumably be good even when it was not desired—or if we held (curious as this might appear) that the sort of thing in question was always desired throughout its existence or as long as it remained good, still its being good would be different from its being desired and speaking of its goodness separately would obviate confusion. If, on the other hand, the "desirable" means that the desiring of which is good, then we are attributing goodness not to certain things chosen, but to relations of choosing—or we might attribute it to that which chooses—but in neither case would any connection have been indicated between goodness and the character of the things chosen, so that *they* could be called "desirable". In other words, unless goodness simply means choosing certain things (which then would not themselves be called "good"), the fact that what is good chooses, or is the choice of, something will be beside the point.

There would be no difficulty in taking a consistent view, of course, if the matter were considered relationally—as a question, say, of support or advocacy. Thus the "desirable" might be taken as that which is advocated by certain people (or is in harmony with a certain movement) or as that *the desiring* of which is so advocated; and there would be a ready passage from either of these meanings to the other. Something like this, I would suggest, is the ordinary usage; the assertion that X is desirable always invites the question—desirable for the sake of what? But Moore, in upholding the *absolutely* desirable or the notion of "good as an end", is running together relational and non-relational notions. He is falling into the

sort of confusion he himself refers to as "the naturalistic fallacy", exemplified in what he takes as Mill's dual use of "desirable" and again in "evolutionary ethics" which at once identifies and distinguishes the good and the product of evolution, maintaining that "good" means neither more nor less than what evolution produces and yet that the product of evolution *is good*. Certainly, Moore holds that some ends are not good; but he cannot distinguish good and bad ends except by their qualities—in which case their being ends has nothing to do with the matter—and thus, when he takes "finality" as essential to goodness, he can be accused of identifying, as well as distinguishing, being good and being an end. Incidentally, whatever may be said of his later argument to show that we desire other things than pleasure, he cannot be said, in the passage above referred to, to have convicted Mill of any blunder based on a misunderstanding of "desirable"; for, if the only thing that can be an end is pleasure, it is equally the only thing that can be a *good* end.

In fine, Moore does treat good as the ultimate object of demand, as that for the sake of which anything else is demanded: for if he should change this to that for the sake of which anything else is *properly* demanded, in other words, that the bringing about or production of which is "proper production", the only meaning he could give to this expression would be *production of good*—and thus he would be saying that good is that the production of which is production of good, which is quite uninformative and, in particular, indicates no connection between production (or the employment of means to ends) and good. But he also wants to treat good as qualitative. And it is this predicament that is at the basis of his doctrine (developed in the first chapter of *Principia Ethica*) of the "indefinability" of good.

In the first place, we may say, it has to be taken as indefinable, there is nothing we can set out as its character, because there is *no* ultimate object of demand. But, secondly, there can be nothing common and peculiar to it, because that could be taken as a reason for demanding it (something

common but not peculiar to good could not be such a reason, for it would equally be a reason for demanding what is not good), and, being that for the sake of which some person demanded "good", this "reason", or something to which it in turn was subordinate, would really be the person's standard or ultimate end; i.e., it, and not the thing first called so, would really be the person's "good". To put the matter otherwise, Moore has *implicitly* defined good as that which is ultimately demanded (or desired), but he cannot make this explicit without exposing himself to criticism on the score of the irreducible multiplicity of demands—and, as already said, he has a sense of good as a quality. In fact, in his notion of good he *amalgamates* quality and relation (this being the procedure which, in my view, is properly described as "relativism") and so cannot give either a relational or a qualitative account of it—hence its "indefinability".

This view is borne out by his treatment of good as peculiarly a predicate. In the passage first quoted (§ 5) he considers the assertion that this or that is good as the sort of thing that ethics would seek to establish. One would think that ethics, regarded as specially concerned with good, would try to discover predicates as well as subjects of it, how it operates as well as where it occurs. But it cannot stand as a distinct subject if it is really conceived relationally, if in its use "as a predicate" it is an abbreviation the expansion of which would introduce a hitherto unstated term, if it is not an operating thing at all but a way in which one thing stands to another. Not being prepared to undertake (or even admit the possibility of) this expansion, Moore has to fall back on "intuition", the arbitrary attribution of goodness to certain subjects, with no possibility of discussion. But such attribution, if it cannot be expanded, can never convey an absolute obligation on persons to endeavour to bring such subjects into existence; on the other hand, any actual expansion would still not impose an *absolute* obligation, would not show that anything is obligatory in itself but would merely present something that some persons would be inclined, and others disin-

clined, to promote. It is more convenient, if there are objects one wishes above all to promote, dogmatically to call them good and let it be "understood" that a certain obligatoriness attaches to them on that account.

Moore supports his position (§ 9) by distinguishing between good and *the* good (that which is good), the latter of which he believes to be definable though the former is not. "I suppose it may be granted that 'good' is an adjective. Well 'the good', 'that which is good', must therefore be the substantive to which the adjective 'good' will apply: it must be the whole of that to which the adjective will apply, and the adjective must *always* truly apply to it. But if it is that to which the adjective will apply, it must be something different from that adjective itself; and the whole of that something different, whatever it is, will be our definition of *the* good." Now, Moore says, "many people appear to think that, if we say 'Pleasure and intelligence are good', or [and?] if we say 'Only pleasure and intelligence are good', we are defining 'good'." But this is not his own view; whatever definition of the substantive may be found, the adjective, he considers, remains undefined. "It may be true that all things which are good are *also* something else. . . . And it is a fact, that Ethics aims at discovering what are those other properties belonging to all things which are good. But far too many philosophers have thought that when they named those other properties they were actually defining good; that these properties, in fact, were simply not 'other', but absolutely and entirely the same with goodness" (§ 10). And it is this view that Moore proposes to call "the naturalistic fallacy".

In dealing with these contentions, we need not dwell on the fact that they would make *any* term indefinable—so that Moore must be simply wrong about the meaning of definition. The essential point is that the adjective does not "apply" to the substantive ("that which is good is good" is not a proposition), is not predicable of it as one term is predicable of another, but adjective and substantive are the very same term, and when we define the substantive we are defining the

adjective. The adjectival form is ordinarily an indication that the term is being used as a predicate, and, when we use it as a subject, we find it more natural to employ the substantive form; but such usages involve no *logical* distinction. Thus "Some animals are men" is the very same assertion as "Some animals are human", and though, in converting the second form, we commonly say "Some human *beings* are animals", we could say, without alteration of content, "Some human are animals", or "Some human are animal". Again, we could derive the syllogistic conclusion "Socrates is mortal" from the premises "Socrates is human" and "All men are mortal", or "Socrates is a man" and "All human are mortal", as easily as from those we ordinarily employ; in fact, it is a question of different formulations of the same premises, not of different premises. The whole point of syllogistic argument is that the same term may function as a predicate ("adjectivally") and as a subject ("substantively"), that it characterises other terms and is characterised by other terms.

Equally, a term is *defined* by other terms. If "rational animals" were a correct definition of "men", that would mean that we could substitute "rational animals" for "men" in every true proposition in which "men" occurs as subject or as predicate and the resulting propositions would be true. But they would be different propositions from those we started with. In defining A as B, or, more strictly, as BC, we are not proposing never to use the term A again but always to use the term BC instead; we are setting forth a complex relationship among certain sorts of things, A, B and C. Thus there may be some force in Moore's opposition to those who say that good means "nothing but" something or other, e.g., nothing but the object of desire. But the main question in this particular case would be whether good is to be taken qualitatively or relationally. If in the former way, it cannot be described as nothing but the possessor of a relation to something else (it would have to have some other description, or there would be nothing to be so related), whether the proposed "total" description is called a definition or not. If in the

latter way, the correct expansion of an abbreviation can certainly not be called a definition, but at least it makes for understanding of the matters talked about.

It is true, as Moore goes on to say (§ 11), that such an explanation of a usage cannot direct us to act in one way rather than another. But it is no less true that the recognition of a quality cannot so direct us. Thus, when he says of people who explain how the word "good" is used, that "in so far as they tell us how we ought to act, their teaching is truly ethical, as they mean it to be", but that it is absurd of them to offer the usage as a reason for acting as they recommend, he is showing that he himself has no clear conception of ethics or of goodness. The point is connected with his assertion that good is not a "natural" object, and with his consequent description of theories which identify good with some natural object as committing the *naturalistic* fallacy (though the same "fallacy" is committed, he considers, if good is treated as "absolutely and entirely the same" as anything whatever). For we can take as natural having a certain quality, and we can take as natural being in a certain relation, but we cannot take as natural that in which being in a certain relation and being of a certain quality are merged. But this is not because it is "non-natural" (perhaps, supernatural); it is because it is nothing at all. The description of good as non-natural, like the description of it as indefinable, is a way of avoiding the clearing up of the ambiguities in Moore's conception of it.

A parallel case is found in the discussion between Socrates and Thrasymachus in *Republic*, Book I. Thrasymachus demands of Socrates, after he has demolished the definition of justice which Polemarchus has tried to uphold, that he should give his own definition of it; "and don't dare to tell me that it is the obligatory, or the expedient, or the profitable, or the lucrative, or the advantageous, but make your answer precise and accurate, for I will not have any rubbish of that kind from you" (Lindsay's translation). The point would seem to be that, if we give an "ethical" definition of any

ethical term, we have what is really no more than an identity ("the worth while is worth while", say), whereas if we give a "non-ethical" definition of it (if we define it as a "natural object"), we seem to be destroying ethics; hence moralists like Socrates (and Moore) are unwilling to define such terms.

But what we are destroying, if we point definitely to some existing thing as the subject of ethics, if we take good as a merely descriptive term, is its mandatory character. "Goods are just those things" does not direct us to act in any way but it permits us to investigate *their* ways of working, and so ethical science can go on. But "the good is the mandatory" tells us nothing at all; it invites the rejoinder of Thrasymachus, implied in his definition of justice as "what is advantageous to the stronger" (or "the interest of the stronger": Jowett), that such a relation among persons as the command of a ruler to his subjects is all that we can positively mean by an *imperative*. This is something we can observe, it is a type of situation in interaction with which we can develop a theory of it, whatever qualities that which is imposed by command may have. Similarly, we could study things qualitatively describable as good, whatever relations they might have. But an imperative quality is something we could never observe or study; it has to be left in obscurity because it is basically ambiguous—though we may still consider that the postulation of such a "non-natural" entity covers the pushing of certain quite natural objects.

The remainder of Moore's first chapter raises a few further points, which may be briefly dealt with. His distinction (introduced in § 15) between the two types of ethical judgments, those which take something to be "good in itself" and those which take something to be "good as a means", suggests that carrying over of a character from end to means which has already been criticised. Here it may be said that judgments of the former type, which take a "unique property" as attaching to something, would also have to take it as attaching *in a unique way* if it is a non-natural property of a natural object. In fact, it is

impossible to see how Moore's "intuitions" would work, how an unobservable predicate could be found to attach to one observable subject rather than another, or how we could ever know that it was the same thing that had some natural property and had the non-natural property. But if we are able to take a thing and its ethical and non-ethical properties in the same view, there is no question of "intuition" (except in the sense of observation), and good is found in things in the same way as red or yellow may be found—the alternative being that it does not "attach" to them.

The point is reinforced by consideration of judgments of the second type, "that the thing in question is *a cause or necessary condition* for the existence of other things to which this unique property does attach". For a thing is not a means to good unless it brings about not merely things which have the property but the property itself, unless good comes into existence through the operation of the thing in question. (It may, of course, already exist elsewhere, but the thing has caused it to exist in a given place.) Otherwise, the existence (or subsistence) of good is quite indifferent to that of the things to which it is said to attach, and in that case there is no sense in saying that it attaches to them. But if a natural thing, in its natural operation, can bring about the result, good, there is no sense in saying that this is not a natural result, no way of distinguishing its natural results from its non-natural results; in each case it produces something somewhere. And it should be noticed that what is in question here is not the theory of universals; it may, indeed, have some relevance to the case, but Moore admits that there are natural properties (e.g., yellow), and he is not entitled to treat some properties in terms of one theory of universals and others in terms of another, to make out that there are peculiarly "subsistent" properties. The conclusion to which he is forced, then, is that good is natural.

His doctrine of organic wholes (introduced in § 18) is of importance only as a confirmation of his relativism. "*The value of a whole must not be assumed to be the same as the*

sum of the values of its parts"; it can be greater or less. Moore is speaking here of "intrinsic value", of the "unique property" also referred to in the phrase "good in itself". Thus he is recognising *degrees* of goodness—as he also does in taking the right act to be that which has the *best* total consequences. Now, such recognition presents no difficulties if good is taken relationally, if, in particular, the good is identified with the wanted. For clearly there can be degrees of "wantedness"; we can want one thing more than we want another. Thus we could speak of a thing as "better" than something else or as "the best" of a number of things, using the same sort of abbreviation as we do in calling it "good", i.e., without specifying who it is that does the wanting—though, while we can speak of a thing as a "good" (commodity) if it is wanted by any one at all, specification is more urgent in the case of degrees since different people have different preferences or, as we may put it, since there are different rates of exchange on different markets. The very use of the term "value" suggests that the question is an economic one—remembering always that there is no place, in strict economic science, for the conception of "intrinsic" value.

But if good is taken qualitatively, there can be no question of degrees; if two things have a certain quality, one of them cannot have it "more", in a higher degree, than the other has it. This is a point on which there is a great deal of confusion, and in common speech we constantly make such assertions as "Gum-leaves are not so green as grass". Now one possible meaning of this assertion is that, while grass is green, gum-leaves are not green but have certain resemblances in colour to what is green—more generally, that various colours can be said more or less nearly to "approach" a given colour. But, whatever may be meant by "approaching", this will not entitle us to speak of degrees of possession of a given colour. Alternatively, it may be meant that each is of some shade of green but one shade is more "typically" green than the other. But in whatever way the type may be determined, if both shades are really shades of green, one is not more

possessed of greenness than the other. In other words, if it is in greenness that they agree, it is not in greenness that they differ; and any contrary view would simply involve the use of "greenness" in different senses. Again, we often speak of a thing as "partly green", but this would seem to mean that parts of it are (unambiguously) green and other parts are (unambiguously) not green—and in that case the thing itself is *not* green; it has a green part but it has not a part of greenness. More could be said on this question, but it will always be found, I would argue, that the notion of degrees of any quality is a confused one—that the question of a thing's possession of the quality is confused with the question of its possession of other qualities (or of certain relations) as well.

The persistence of the belief in degrees of goodness, then, is due to the fact that it is not taken qualitatively, or not *only* so, that it is taken as jointly qualitative and relational. But that means that it is taken in an inconsistent fashion. This inconsistency is present in the very notion of "intrinsic value", i.e., of something which is such *in itself* that it requires to be valued (by some other being); for, even it could be significantly said that the thing "calls for" valuation (this, incidentally, being regularly taken to mean that it calls for support, not merely for recognition of it as of a certain character), that would not be what the thing is in itself. Two consistent attitudes can be adopted. One is to deny that good is a quality, to take a purely relational view of it, e.g., that it is the demanded. In that case we can work out a positive theory of it, while recognising different degrees of "demandness" (or relative strengths of demands). Equally we can have a positive theory of authority while recognising that some things exercise greater authority over us than others but denying that anything is authoritative in itself. The other is to take good simply as a quality, to recognise goods as things existing in certain places and going on in certain ways. On this view, though not on the other, there will be a distinct science of ethics, but it too will be a positive or natural science. This, however, will be no reason for confusing it

with other natural sciences, e.g., the science of the operation of our demands.

It is true, no doubt, that those who recognise such a quality and such a science will have in the end to give some explanation of the confusions that constantly arise, of the fact that the expression "goods" which they use qualitatively is used relationally in economics, of the fact that "justice" has jointly or alternately a political and an ethical meaning—on the one hand, social procedure according to recognised rules and, on the other hand, a *good* way of proceeding. But what they will have to do in the first place is to explain their own usage—and to point out what, in accordance with it, they take as the most serious errors of other thinkers.

Thus they will accuse Socrates, in the *Republic*, of confusing between political and ethical "justice", between the system of rules laid down in a given society—this being always a compromise, a working arrangement among divergent movements, and varying from time to time as well as from society to society—and the modes of operation of goods, limited always by a hostile environment but incapable of existing *except* in the struggle with difficulties. They will accuse him of obscuring the relation between the two (obscuring, e.g., the concrete question how far the operation of goods is necessary for any sort of social cohesion) by erecting an imaginary system in which political and ethical justice are one, in which goodness dominates and the "rules" of its operation are in no way contravened. And they will observe that all this is facilitated by the taking up of a preceptual attitude, the attribution of a mandatory character to goodness, that the questions of how societies work and how goods work are amalgamated in the notion of how societies *ought* to work. They will say, then, that progress in ethics and allied studies depends on the rejection of "mandatoriness", which can only arbitrarily be attached to any line of action. Not that they will accuse Socrates, or again Moore, of mere advocacy—but until, in the work of such thinkers, the recognition of goodness as a quality of certain human activities is disentangled

from the advocacy, discussion will not be materially advanced and ethics will remain a free field for any one who thinks he can tell people what to do.

It is in fact a standing obstacle to the acceptance of ethics as a positive science that people simply will not be persuaded that, when we say "X is good", we are not urging them to promote X or to exhibit activities of the character X—that there is no more advocacy in our statement than in the statement "X is red". When they demand proof of such a statement, what they really want us to give them is some reason for supporting X—a reason which, of course, could be given only by connecting X with something (no matter what its nature might be) which they actually support, and thus a reason having nothing to do with the qualitative characterisation of things. Such people, on the other hand, as recognise that it is a quality that is in question will see that formal proof of its belonging to X depends on its being known to belong to something else which may be predicated of X. And proof of this kind will be of no use to those who have still to be persuaded that there is "such a thing" as the quality, good. It has already been observed that there is no question of a mere quality, that good, on the view under consideration, would have to be taken as a "sort of thing" (or term) which could be either subject or predicate. The question is, then, how any one who does not yet admit it, can be brought to see that there is the sort of thing that another person calls "good".

First of all, there is the possibility that he *is* acquainted with the sort of thing (or, putting it extensively, with the class of things) in question but calls it something else, so that all he is to be brought to do is to alter his usage. But he would not do that if he thought that calling it "good" was an idiosyncrasy of the person trying to persuade him, but only if he considered that it came fairly close to a common usage or perhaps more particularly to a learned usage, that many views of good were concerned with something closely connected with the given sort of thing and, indeed, might be

represented as not fully successful attempts to clarify the conception of it. And this leads on to the second possibility, that it is something of which he himself has not a clear conception, something he "implicitly" recognises but has only partially disentangled from other sorts of things (or qualities). Persuading him in such a case would largely consist of showing him that, by drawing lines of distinction where it was proposed that he should do so, he could clear up many uncertainties, could give coherence to his own and other people's views and usages, could, as before, represent them as attempts to grapple with what the suggested position clearly sets forth. It may be said, in fact, that this is a regular feature of criticism and the development of knowledge, and that it must be involved in the establishment of a positive theory of good—that no one who has not some acquaintance with the field (whatever his confusions may be) is going to understand, let alone accept, a view of it. The essential point is that there are degrees of clarity and confusion.

It must not be thought, however, that it is solely (perhaps even mainly) by formal argument that confusion is dissipated. Here we may consider how in general we come to distinguish a quality, recognise a sort of thing, "use a term". What is in question here is not the use of *words*, but can be illustrated by reference to the use of words; the learning of a language exemplifies the characteristics of learning in general. For, while the use of a word may be described as arbitrary in the sense that what we call "green", for example, could conceivably have been (is, in fact, in a language other than English) referred to by some other word, we are not using it as a word unless we refer by means of it to a particular sort of thing. And this implies that we are directly acquainted with that sort of thing or with things as of that sort, i.e., with situations. Further, we have to be acquainted with the word as a noise of a certain sort; and the "reference" of this to the other sort of thing is a further situation with which we become acquainted.

As has been pointed out by J. B. Watson, the principle of the learning of a language is that "the word brings the thing", this being a particular example of the way in which one sort of thing signifies another (as black clouds mean rain or fire means heat). We learn, that is to say, by having desires and expectations and having them satisfied. Of course, we are often disappointed; but it is in trying to overcome disappointments that we learn to make finer discriminations. So we may make mistakes in the use of language, i.e., in the usages of the persons from whom we learn it; a situation being complex, we may "mean" one feature of it when they "mean" another. And there are other reasons why the word does not always bring the thing. But if it had not, in the first instance, led to the presentation of something we recognised and if it did not later elicit certain reactions (forms of communication) from other people, we should never learn the language. The essential point is that it is in our operations (involving, for the most part, co-operation, and marked by fulfilled and unfulfilled expectations) upon the situations in which we find ourselves, that we learn and, incidentally, correct our errors (as far as we do correct them), i.e., our failures to get the expected response from things or from persons.

This means that we can acquire a knowledge of good, in particular, only as something upon which we can act and which can act on us—only as something "natural", present in our environment. Unless good is one description of certain things, helping us to recognise them just as their being green might do, we can have and communicate no knowledge of it—assuming, that is, that it is not something relational; but, if it were, our knowledge of it would still depend on our encountering such relations in the situations that confronted us. The treatment of it as "non-natural", not open to ordinary observation, is due, as we have seen, to the running together of incompatible meanings; and on that view we could never have become acquainted with it. It will be urged, in this connection, that the expressions "good" and "bad" come to us as *hortatory* terms, that the initial meaning of "X is good" is "I want you

to do (or to promote) X", while that of "Y is bad" is "I want you not to do (or to avoid) Y". These, of course, would be perfectly natural meanings; we regularly encounter facts of these types in our mature experience. But it may be questioned whether the notion of exhortation can be clearly grasped in early experience, and consideration of what is then conveyed may lead to a modification of the relational view.

The position adopted by members of the Freudian school is of importance here. The child, they consider, being urged to do what is "good" and to avoid what is "bad", finds that the doing of the acts described as "bad" leads to the withdrawal from him of his parents' affection, while the doing of the acts described as "good" involves its retention or restoration. Thus "bad" brings or means for him loss of love, and "good" means love. The general effect of the parents' exhortations, then, is to attach the notion of "goodness" to something of which the child has direct experience—which is, indeed, the main form of his communication with others. It may be contended that the admonitions the child receives are of such a mixed character that he can draw no clear line between what is good and what is not. But, the answer is, unless he can draw some line, the admonitions will have no meaning for him and he will never be "morally trained"; and he has his own experience, of love and the loss of it, to draw upon. Thus, while the mixture of admonitions and, later, of social pressures (and this would vary in different cases) may be responsible for some abiding confusion on the subject of goodness, he has his own way of meeting the situation; according to the Freudians, he divides the parental figure into a "good" and a "bad" parent—the latter being the original of the "wicked step-parent" of the legends.

The "ethical" distinction he adopts can thus correspond very closely to a real difference of quality, and so can be the beginning of a positive theory. It is another question how far the theory will develop, whether the distinction will become more or less clear-cut as time goes on, whether similar differences will be observed in other cases—i.e., whether love

will be taken as the only good (the view that the Freudians themselves tend to adopt) or merely as the first recognised or first strongly operative good. And here I would suggest that the distinction between thoroughgoing communication (co-operation) and repression is of considerable importance, that, while this may seem on the face of it to be a distinction between relations, there are distinctive qualities that go with them, that a quality, goodness, is involved in communication itself, whether it be the communication of love, the communication of knowledge, or any other. On this view, good is not merely something that we discover but is that by which we discover things—or, if inquiry is taken as one particular good, it at least communicates with other goods and they assist its operations (a view which I have maintained, in slightly different terms, in an earlier article: *Determinism and Ethics*, this Journal, December, 1928).

On this view, too, the consideration of social movements is of considerable importance for ethics and may assist the recognition of good as a quality. It may be recognised first that there are qualitative differences among ways of life, and secondly that a way of life is not something that we adopt, by a voluntary decision, but something that adopts us, takes us as a vehicle, kindles a certain "spirit" in us. Thus the scientific spirit, the spirit of inquiry, may be said to be kindled in us by the scientific movement, by a social phenomenon which no individual or set of individuals could have planned and which, in operating through an individual, never completely absorbs him but strengthens the communicating, as against the divisive, tendencies in him. The other ingredients in culture, like art and industry, are also generative of a communicating spirit and of institutions in which it may be expressed, and this, it may be said, is what prevents the taking of "culture" in a non-qualitative sense, as merely what is established among a group of human beings at any given time. So with "progress"; it cannot be taken simply as the approach to any desired object, for it implies a continuing tradition and the working further, without arriving at any

end, along the line of that tradition, being thus opposed alike to stagnation and to mere innovation. And only certain activities can proceed in this way, as science, e.g., goes from solutions to further problems.

Progress, then, is not the achievement of "greater good" but is a characteristic of goods; goods are "progressive" in that they continually grapple with new problems on the basis of their previous history. They are the continuing features of social life, the "causes" to which men can devote themselves. The position may be summed up in Croce's description of history as the story of liberty or, as we may put it, liberty as the subject of history. Liberty resides in "causes", and they alone have a history because they alone continue as long as there is society. We may thus approach a *definition* of good. Goods, we may say, are those mental activities, or those social activities, which are "free" or enterprising, which exhibit the spirit of enterprise. It might be better to come down on the mental side. The main point is that ethics penetrates both the psychological and the sociological field, but is nevertheless a distinct and positive inquiry. And the recognition of a class of things to be inquired into is more immediately important than a formal definition of good. But definition has its own scientific importance, and it should be understood that there is nothing "indefinable" about good, whether we actually succeed in defining it or not.

That many people would be unconvinced, by the above outline of a view, of the existence of a natural quality, good, is obvious; but others may see that it is something with which they have long been in certain ways acquainted. It may be seen, too, that certain popular "moral" conceptions can be accounted for as approaches to what I have taken to be ethical facts—that "happiness", e.g., may be understood not as the receiving of what we want, so that we want no more, but as the continuance of an activity, securing its materials as it goes along; that "freedom" may be taken not in the metaphysical sense of release from causation but as a power of devoting oneself to what transcends oneself (a social move-

ment or "cause"); that even "duty" may be considered as expressing the fact that individuals may fall away from movements and be painfully brought back. The vital point is the rejection of "good as end", of the notion that goods come about by being wanted. This, the individualistic or "consumer's" view, is the main obstacle to the development of a positive science (i.e., a science) of ethics.

That there should be such an obstacle is not surprising. For the goodness of inquiry implies the goodness of ethical inquiry. And, in recognising that goods themselves operate in us and out of us, we have also to recognise that they encounter obstacles both in us and out of us. We cannot, in other words, make the world safe for goodness; it exists and develops in struggle with evils. But it is important also to observe, in rejecting the doctrine of conscious intention (or "planning" of good), that good can exist without consciousness of good, that a person can engage in good activities without being an ethical theorist.

NOTE.

The Rorschach Technique of Psychodiagnostics.

IN recent years there has been a remarkable development of interest in the Rorschach Ink Blot Test as a diagnostic instrument in child guidance, personnel selection, psychopathology, psychiatry, and allied fields. In 1939, psychologists and psychiatrists using the Rorschach method formed a professional organisation, the Rorschach Institute Inc. (with headquarters in New York), to serve as a clearing house for information on research, for the conduct of training courses, and for the safeguarding of professional standards.

An authorised Regional Division of the Rorschach Institute is now being established in Australia with a view to furthering the objectives cited above. Psychologists, psychiatrists, and others interested in the Rorschach method are invited to communicate with:

D. F. BUCKLE, M.B., B.S., D.P.M.,
Younger Court, Kew, Victoria,
or

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CAN RELIGION BE DISCUSSED?

By ARTHUR N. PRIOR.

SOME years ago Dr. R. P. Anschutz contributed to these pages a dialogue on religious belief. I make no apology for covering again, in the dialogue which follows, a little of the ground which he went over then ; but I hope I have introduced some new elements. My characters are Barthian Protestant, Modernist Protestant, Catholic, Logician and Psychoanalyst. The footnotes are by myself. Modernist Protestant is not much more than a foil or butt for the rest. Barthian Protestant may be an unfamiliar figure to philosophical readers ; for whose benefit it may be explained that Karl Barth is a Swiss theologian with a considerable following in Europe, most notably in the German Confessional Church, which, under the leadership of Martin Niemöller, has offered persistent resistance to Nazi interference in ecclesiastical affairs. The play begins.

Barthian Protestant : I ought to explain that I was in two minds about coming here at all. You see, I'm doubtful of the value of religious discussions between Christians and non-Christians ; for there is no point of contact for argument between them. The truth of Christianity cannot be proved ; faith is a gift of God ; so what can I say that would be of any interest here ?¹

Catholic : My own creed is commonly charged by Protestants with inhumanity ; but it is hardly as inhuman as the Protestantism I have just heard. You appear, Barthian, to divide mankind into two rigid groups between which no intercourse is possible. On the one hand are believers, and on the other unbelievers, and never the twain shall meet. It is a sort of spiritual racialism. We Catholics, however, affirm at least the *initial* spiritual equality of all men. Belief is a possibility that is open to everyone, and reasons for believing can be set out objectively for all to see.

¹ When invited to be a Gifford Lecturer, Barth at first declined, on the ground that he was an avowed opponent of all natural theology.

Psychoanalyst : Before you two go any further with this little private discussion about whether Logician and I are human beings or not, might I chip in with a question to Barthian? I am wondering just why he did decide to come after all.

Barthian Protestant : I am glad you asked me that, as it will give me an opportunity also of answering Catholic's charge of inhumanity. What I was leading up to was a confession that I have come here with the deliberate intention of breaking the rules and, instead of arguing against unbelief, preaching to you—confessing my faith before you, in the hope that it may awaken an answering faith in yourselves. For I do believe there is one point of contact between us ; though it is not one which enables us to discuss whether Christianity is true or false ; and it is not a point that lies within ourselves. The point of contact that does bind us all together is the fact that we are all sinners for whom Christ died, wholly dependent on God's grace. And it is not for *me* to say that the grace of faith has been denied to anyone here ; still less is it for me to claim that the grace of faith has been put into my own possession for ever, so that I no longer need God's help to go on believing. On the contrary, I know that I do go on needing it always, and continue always to be nothing in myself but a sinner and unbeliever. I hold also that the help I need may come through you—that it may be given to you not only to believe but to confess your faith (perhaps without realising that that is what you are doing) and so help me. I have come not only to convert but, knowing that I need conversion again and again, to be converted. In that perhaps I hold to our "spiritual equality" even more firmly than Catholic does.

Logician : Perhaps—but you haven't come to be converted to a different point of view—which is the only sort of conversion that I can understand. Never mind that, though. You apologised at the outset for breaking some "rule" or other. I wasn't aware that any rules had been made in connection with this gathering, but I imagine you have in mind those Laws of Thought or Laws of Reasoning of which I am popularly supposed to be the guardian. I can give you my professional assurance that these Laws don't in the least forbid you to

“confess your faith”, as you put it. In fact, that is what I would particularly like you to do. I’ve never been much worried about the difficulty of “proving” the truth of Christianity; and I would agree that most of our basic convictions have to be taken on trust. The real intellectual difficulty for the believer or would-be believer is not the problem of proof but the problem of meaning. The characteristic propositions of religion seem to me to be meaningless. So if you three Christians can tell me exactly what it is that you believe—and I presume that that is what you mean by “confessing your faith”—I’d be more than grateful.

Modernist Protestant: Yes, and when we’ve told you, you’ll analyse and analyse and then tell us there’s nothing left. You logicians forget that life is larger than logic. Religion is a deep experience, a matter of profound feeling, something that the rapture of poetry can catch, but that eludes *your* methods; and life is like that too, and love, and lots of things.

Catholic: Yes, life is like that, and love, and lots of things. “Lots of things” are impressive and moving and mysterious, but that hardly makes them proper objects of religious adoration. When a man worships, he should know what he is doing—it is too solemn and responsible an act for him to perform without applying any criterion of worthiness and unworthiness, truth and falsehood. For that reason Logician’s request seems to me a fair one. We must be able to state with some precision the difference between God and all other beings—to explain, in other words, exactly what we mean, and still more exactly what we do not mean, when we confess “I believe in God”—or we may find ourselves worshipping merely one object among the many which make up the universe, instead of Him Who made all. The charge of idolatry is often flung at us Catholics, but we certainly guard against that sin more carefully than the Protestant who has just spoken. What the mediæval schoolmen said—and I have yet to learn that their work in this field has been improved upon—was that the Being of God is necessary, while that of all other beings is contingent. All the objects we commonly encounter can be imagined not to exist—they exist, so to speak, by chance—but for God there is no such

possibility of non-existence. He occupies the field of Being securely; His dislodgment from it is unthinkable; indeed, the supposition of His dislodgment is nonsense—it cannot even be talked about; we are not really speaking of God when we say such things. *God is His Own Being.*² Similarly, all other beings are *what* they are “by chance”; at least their “properties” are contingent; one could imagine them being otherwise; all other good things, for example, even some supremely vast and good being whose vastness and goodness tempt us to worship him, are good “by chance”; they might have been otherwise. But God couldn’t have been other than good, and there is no chance of His losing His goodness; the supposition of His losing it is nonsense, because *God is His Own Goodness*, and all goodness. All our goodness flows from His and is dependent on it; while His is perfect and undervived and sure, because it is Himself.

Logician: Excuse me—in that sentence of yours, “God is His Own Goodness”, which you insist is no poetic fancy but strictly logical discourse, what part of speech, what kind of noun, is the word “God”?

Catholic: Proper or common, I suppose—a bit of both—does it matter?

Logician: No, *that* doesn’t matter. The alternatives I had in mind were proper or common on the one hand, and *abstract* on the other. On the face of it, as you say, “God” looks like a proper or common noun. Qualities are predicated of Him—“God is good”; and in the sentence we are considering, you speak of “His Own Goodness”. But then you say that God is this “Goodness”; that is, He is not a thing or person at all, but an abstraction.

Catholic: I see you have the modern nominalistic prejudice against abstractions.

Logician: Oh no—on the contrary, I have often wished that this word “abstraction” were changed for some other, first because it tends to give rise to the prejudice you mention—

² This proposition is not only in Anselm but in Aquinas, who holds that God’s existence though necessary, is not self-evident to man. I have not equated Catholic’s position with the acceptance of the ontological argument; though I think Kant has shown that he *ought* to accept the ontological argument—that the cosmological depends on it.

the prejudice that good objects are real while "goodness" is somehow just imaginary. If God is an "abstraction", He is none the less real for that—I mean, *that* doesn't make sentences about Him meaningless. There are many different ways in which we can convey the same information, all of them making sense, and I have no prejudices against any of them. We may say the same thing with abstract nouns or common ones, and either way does equally well. We may, for instance, say "The people were very happy" or "The people's happiness was great". The second sentence isn't "meaningless" because its subject is an abstraction; on the contrary, it means exactly the same as the first. I do insist, however, that the second sentence doesn't *add* anything to the first. We are not first given information about the happy people and then new information about their happiness—the sentence about their happiness is just another way of telling us about the people, and the sentence about the people is just another way of telling us about their happiness. We can talk sense either way, but we *must* decide which way we will talk. We cannot have it both ways, and use a word as an abstract noun and a common noun at once,³ as you try to do in your sentence "God is His Own Goodness"—that's just bad grammar, a combining of words which fails to make them *mean*—like "Cat no six". You have indeed established a complete difference between God and all other beings, so that there is no danger of any idolatrous confusion; or rather, you have established a complete difference between "God" and all the other words we use for naming things; but the difference is that this word, as you use it, does not and cannot name anything whatever—you refuse to put it through the proper motions of "naming".⁴

³ This insistence that abstract and common nouns must be subjects of different sentences is only a modern variant of Kant's insistence that it takes *two* propositions, or at least a complex proposition and not a simple one, to express necessity ("If . . . , then . . . " propositions expressing "logical" necessity are translations from one way of describing a situation into another).

⁴ Logician's whole argument applies to Hegel's pantheistic "concrete universal" as well as to Catholic's theistic one. Hegel is not concerned to establish an absolute difference between "God" and all other names, but he eliminates this difference not by using "God" sensibly but by using all names nonsensically, i.e. as Catholic uses "God". "Pantheism" lays itself open either to this objection or (if it rejects the Hegelian "logic") to that of Catholic—that it worships, in "the Universe", an object we have no right or reason to worship.

Barthian Protestant: It would seem, Logician, that your "professional assurance" that the Laws of Thought would allow us to confess our faith, was a little premature.

Psychoanalyst: I was thinking something of that sort myself. Logician hasn't proved such a liberal fellow as his first promises led us to expect. I agree with him that the supreme intellectual problem for the believer is to show that his propositions have any meaning; but he shouldn't forget that the unbeliever has his problems too; and the chief of these is to explain just how it is that intelligent and civilised men ever come to believe, or imagine they are believing, these apparently meaningless things. Perhaps nothing makes an unbelieving view of the universe more difficult than this simple fact that men do believe—which believing, as Logician has made clear, is a most prodigious performance. And belief on a social and historical scale is if anything more prodigious still. The kind of clear and sharp and anti-idolatrous belief that we have been considering is hardly to be found outside ancient and modern Israel and the Christian Church (with Mohammedanism as a sort of sideshow); and this "people of God", going back to the dawn of time and forward—who knows how far?—is a Body which sticks in the gullet of world history as Catholic's nonsense sticks in Logician's gullet now.⁵ Leaving the historical problem aside for the moment, I would say in reference to Catholic's propositions about God that in fact they are not meaningless at all, but refer to a very real being or beings. God does exist, if you like to put it that way, but He is not what He purports to be. When men talk about "God", they are really talking about such beings as their parents, the primeval father of the race, or Moses, the father of the Jewish Church-nation; and when they speak of their "sin" or murderous hostility to God, it is their hostility to these persons that they are describing.⁶ This, however, they do not know, and do not

⁵ Freud's "Moses and Monotheism" is, as far as I know, the only anti-religious work which treats the uniqueness of the Hebrew-Christian tradition as a serious problem for unbelief to solve, and does not evade it with chatter about all religions being the same, or evolving along a single line.

⁶ "Rabbi" Duncan, a 19th-century Scottish Calvinist who has been compared with Barth, said that sin "designs decide" and seeks "to slay Being at its root". A better description of parricide could hardly be found.

want to know, and in various ways they keep the knowledge from reaching their consciousness. Not the least ingenious of these tricks of their inner "censor" is that of defining "God" in ways which on inspection prove to be meaningless. Thus if we ask, "Is 'God' a name for your father?", the answer is, "Oh no—to worship one's father is idolatry, which we have surely repudiated as plainly as it is possible to do". "Then who is He?" "He is His Own Goodness"—this senselessness forms an opaque wall which bars the way to further inquiry and keeps the secret buried.

Barthian Protestant: I'm rather glad to hear all this, because it confirms a suspicion I have long had, though I have never followed it up. I have always felt that it must be possible to give an adequate explanation of religious faith on the hypothesis that it is an illusion⁷; and now you have shown me in a broad way how it might be done. It is also possible, however, to explain the fact of faith, and the corresponding sociological fact of Israel and the Church, on the assumption that it is *not* an illusion—that God is real, and faith is His gift, and "sacred history" the story of His strategy. Without being familiar with the non-Christian explanation in detail, I have held that it is probably just as good as the other—that there is nothing to choose between the two, and one just jumps the way one has to. Faith is not the product of superior intellectual discernment; it is not a thing on which we are in *any* way entitled to compliment ourselves; it is an inward miracle of God's mercy, and that is all we can say about it.

Logician: I can understand this idea of taking "leaps of faith" when confronted with two standpoints between which there seems to be nothing to choose. I don't object to it at all—we are always doing it, and there is nothing in such "leaps of faith" that contravenes the "Laws of Thought"—unless one is half-hearted about it, and pretends to be able to "prove" what cannot be proved (then, of course, I claim the right to criticise the "proof"). The validity of inductive inference,

⁷ Barth has always been interested in *Feuerbach* from this point of view, though he seems relatively unfamiliar with Freud. His theology might have started, like Marx's, from some "Theses on Feuerbach".

on which Psychoanalyst's "explanation" of religion ultimately depends, can only be affirmed as a leap in the dark.⁸ That's what I meant by the liberty I allowed you at the beginning. But I'm afraid we are *not* in this case confronted with two hypotheses between which "there is nothing to choose". There is everything to choose between *these* two hypotheses; for one of them makes sense and the other doesn't—the believing hypothesis is meaningless, and so isn't a hypothesis at all. The chances are not fifty-fifty but a hundred to nothing against belief. The "choice" which you imagine you have is illusory—unbelief is inevitable. Unless you have evolved a form of faith which isn't open to the objections which I have raised against that of Catholic—a form of faith, that is, which can be expressed in good grammar.

Barthian Protestant: No, I can't oblige you there. In fact, my main difference from Catholic is that I have never pretended to be able to do so. I do not begin, as he does, with doctrines which look rational but prove not to be so, but present you with the "nonsense" right from the jump. If asked to define God—or in the language of Psychoanalyst, which I prefer, to say Who He is⁹—I would say that God is He Whom we encounter in Jesus Christ, as He is brought before us in the Bible and in the preaching of the Church. And when that definition, or personal identification, begins to be elaborated, we are immediately landed in the realm of paradoxes and contradictions. "Jesus Christ"—we can only say what that name means by talking about the Trinity and the Incarnation, paradoxes both. The Bible—how can we explain its proper authority except by saying that it is both the Word of God and the words of men, divinely infallible and humanly fallible at

⁸ H. Reichenbach, in "Experience and Prediction", formulated a "wager" argument for induction which bears an astonishing resemblance to Pascal's "wager" argument for religion.

⁹ In a work of early Scottish Protestantism, with which Barth has strong affinities, occurs this sentence: "The poets say, Oedipus knew that he had a father, but knew not that Laius was his father; so the heathen know that there is a god, but know not the true God." It is from this point of view that Mohammedanism is a "sideshow"; for while it may be a purer form of abstract "monotheism" than Judaism or Christianity, it is not so definite and unambiguous (and so "monotheistic") in its identification of God's Person by His concrete presence and action in history.

once?¹⁰ The Church's preaching or confession of its faith—this faith also is a paradox; it is we men who believe and confess our faith; and yet it is not us at all, but God speaking for us and in us. And this last paradox explains how my withers are unwrung by all the senselessness which Logician may be able to demonstrate in my language. *Of course* we can only talk nonsense when we try to talk about God—our language is the language of sinful men, and is utterly unfitted for such use. *Of course* the laws of thought, and the laws of grammar, forbid us to confess our faith—we try to speak of God, and it is impossible even to begin. But God, with whom all things are possible, comes to our rescue, and takes up our words and our thoughts and *makes* them carry His meaning and His message to men.¹¹ So my confession of faith can only take the form, "Lord, I believe; help Thou mine unbelief". *Of course* unbelief is inevitable, to me as well as to Logician; and yet—God's grace is irresistible.

Psychoanalyst: That's true in a way too. Only I'd put it differently—it's the religious illusion that's irresistible, and cannot be removed either by demonstrating the absurdity of the objects of belief or by describing psychologically how belief works. This discussion will not "cure" Barthian; all we can do by it is prove him wrong. *This*, indeed, we can do, and have done. I think, Logician, it's time we were going home.

Logician: I am reminded, Psychoanalyst, of the beginning of this conversation, when Barthian and Catholic were debating whether you and I were human beings or not. We now appear to be doing the same with them, and asking, are they sane human beings like ourselves, or are they mad? And like Catholic in

¹⁰ I can find no better way of expressing Barth's curiously ambiguous relation to "Fundamentalism".

¹¹ This is not a wild guess at what Barth might reply to a criticism such as Logician's. The idea that nonsense may be given sense by an act of sheer omnipotence is repeated again and again in his "Prolegomena to Church Dogmatics". On this miracle, for him, the very possibility of a science of theology depends. And on this miracle *alone*. Barth refuses explicitly and absolutely to try and justify his "nonsense" by criticising or qualifying or revising the laws of thought (like Hegel; and Modernist; and perhaps even Kant, to whom Barth is obviously close). Nor, however, does he consider it any part of his business to affirm or accept their validity. The Miracle is his one standing-ground.

CAN RELIGION BE DISCUSSED?

his argument with Barthian, I feel like bringing a charge of "inhumanity" against you—of failing to respect the humanity of others. You hold that our opponents are mad, and that it's useless to argue with them; while I assume that discussion with them is possible, at least until the contrary is completely proven.

Psychoanalyst: And like Barthian, I would plead that I am not as inhuman as you paint me. I *haven't* said that our opponents are mad; at least they're not any madder than you or I. These "irresistible" illusions are things we all suffer from; sometimes they're large and sometimes they're trivial. One can hardly use so alarming a word as "madness" to describe a phenomenon so universal. And what is more important, the "irresistibility" or incurability of these illusions is only relative—they cannot be cured by the methods we are employing just now, and maybe not by you or me at all. Barthian and Catholic are not mad—yet. But a time may come—though on the other hand, of course, such a time may never come; we cannot foresee these things—when circumstances will push them into an emotional crisis in which they *will* go mad unless they do something about it, and then in the painful process of their own analysis they will see for themselves the roots of their urge to believe. Only in this way are genuine atheists made. Atheists by pure persuasion are usually, perhaps always, afflicted with a guilty conscience; the urge to believe is still in them, and they either try to quench it by becoming violent or unfair in their attacks on religion, or try to satisfy it by inventing milk-and-water religions like that of Modernist here, using religious language to describe anything they find impressive or moving or mysterious. Barthian and Catholic may be mad, if you choose to use the word that way; but there are many worse forms of insanity, even among atheists. German Catholicism and Confessional Protestantism are infinitely saner than the racial mysticism they oppose—that's as true on my theory as it is on their own.¹² They can take this, if they please,

¹² Barth's most frequently reiterated argument against Modernism is that it is the beginning of a road which leads in the end to the wrong side of the German Church conflict. This is, of course, merely a particular and very topical application of Catholic's general objection that Modernism cannot guard against the worship of unworthy objects.

as a compliment to their creed from an outsider, or even a "confession of faith" by one who does not realise what he is confessing—or they may take it as a new argument for unbelief, since it shows that unbelievers as well as believers can take due account of the German Church struggle and of the relative justification of the Church's position in it.

Barthian Protestant: Lord, I believe; help Thou mine unbelief!

REVIEW.

THE SUPERPHYSICAL. By Arthur W. Osborn. Ivor Nicholson and Watson Ltd.; London, 1937. Pp. 349. Price: 12s. 6d.

THE sub-title of this book reads: "A review of the evidence for continued existence, reincarnation, and mystical states of consciousness", and these subjects along with Telepathy, Cognition of the Future, The Physical Stimulus and Supernormal Psychism, Phantasms, The Phenomena of Materialization and Telekinesis, are dealt with in the second and larger part of the book, entitled Supernormal Phenomena. But while Osborn is interested in these as special topics, he also presents himself as dealing with a general problem, saying in the Preface:—"The question this book attempts to answer is: 'Are life and consciousness dependent upon that type of organization we call physical matter?'" And the first part of the book is a criticism, by reference simply to *normal phenomena* (this being the title of Part I), of the affirmative answer to this question given by materialism.

Osborn insists that his question is not whether life and consciousness can function independently of matter, but whether they can function independently of *physical* forms. He believes that there are superphysical and yet material things, and gives a definite warning against interpreting the superphysical as "spiritual":—"On the contrary, the evidence indicates that in superphysical states of being forms exist

manifesting the same apparent duality of Life and Matter." We are perhaps meant to discover the nature of matter in general by referring to some of the works in the book-list provided, for we are told that "Occultists have always taught that matter exists in other states than the physical . . ." (p. 87), but from Osborn himself we have only statements of this type:—"The undifferentiated unity appears as a multiplicity. Matter is a principle of limitation, and therefore the root cause of manifestation . . . the 'Matter principle' which lies at the root of the possibility of form permeates all phenomena" (p. 11). Also Osborn does not take up the question of what distinguishes non-physical from physical matter; the occultists take it as more subtle than the latter, but apart from this we have to discover its nature for ourselves from the material on Phantasms and Materialization.

The chapter on Materialization and Telekinesis is of special interest because it brings up the question of opposition to séance observations, and also that of fraud on the part of mediums. As to opposition to materialization it would be quite possible for a conventional scientist to allow that from mediums "under certain conditions a vaporous substance exudes" (p. 172). He would, however, probably approach the subject with the suspicion that a better word than "exudes" could be found for what actually happens, and in this connection it is of interest that while Osborn admits the practice of fraud by mediums, he makes no reference to the various ways in which material might be stored and later expelled by the medium (compare A. M. Ritchie's review of Harry Price's book on *Psychical Research*: this Journal, December, 1940). Also, while the scientist could allow the possibility of a medium's exuding substances, and perhaps even of the reabsorption of these into the medium, he would object to the term materialization being applied to the former of these processes, since that term suggests a formation of the material from the non-material, from mental energy or what not; also he would contend that any such substance is as physical as anything in its environment. However, the

“problems” for the conventional scientist would not arise until he is faced with such contentions as these, that the exuded substance sometimes evolves into living organisms, even into things possessing mentality, and that in the neighbourhood of these ectoplasmic or teleplasmic forms things begin to move for no apparent reason. It is especially these contentions that will lead him to postulate fraud on the part of the medium and the presence of the will to believe in the spectators at the séance.

In considering types of opposition to séance findings Osborn remarks that he can understand people being extremely cautious in accepting them, since comparatively few have the opportunity of observing them, and in view of their extraordinary character. And in dealing with the way an investigator may be duped he says:—“If the conditions under which he witnesses the phenomena are not such that trickery is automatically excluded, then his findings cannot be expected to carry weight with sceptics” (p. 164). But it is clear that he would brand as prejudiced the scientist who held a priori that when “supernormal” phenomena are observed, the conditions *could* not have been of this character; he would take this as evidence of a “will to disbelieve”. Since a will to believe in one direction would require a will to disbelieve in another, we can agree with Osborn that:—“The will to disbelieve is as potent a factor as the will to believe” (p. 174), but the scientist’s lack of attention to accounts of supernormal phenomena cannot be attacked in this way, or treated as unscientific. Nor can it be demanded that the scientist back up his contention by pointing out where the conditions in specific cases were not fool-proof, or that he work out fool-proof conditions for future tests. He can quite properly reject the proposed phenomena because of their incompatibility with other things which he believes to be true. If it is argued that he should be equally ready to reject the latter beliefs because of these new findings, he can point to the facts that scientific beliefs have not been associated with fraud, and that while prejudices have had a part in the development of

theory, still, taking that development generally, it has not subserved men's "urgent needs" (which in the final analysis are probably social demands), in the way spiritualist and such like investigations have.

Actually, as the book brings out, too many men with theoretical training have paid detailed attention to these accounts of the supernormal, and no doubt it is largely due to their influence that the various measures against trickery have been elaborated. Incidentally, while Osborn approves of these attempts to exclude the possibility of trickery, he is "puzzled" as to why Price so stresses the occasion on which Rudi Schneider was photographed with a hand free in a trance—this séance being one of a series in which some of the measures against fraud had been dropped to allow of attention to machines for detecting and recording phenomena. Osborn follows Dr. Fraser-Harris in holding that the freeing of the hand was a reflex movement *following* the supernormal moving of the handkerchief. The argument is that the flash-light, occurring automatically when the handkerchief was moved, disturbed Rudi, so that he jerked his hand out of Price's control, Price not being in the best of conditions owing to neuralgia and Rudi being a "struggling, muscular, semi-unconscious youth".

Osborn also refers in some detail to the "Margery" or Mrs. Crandon séances, mentioning amongst other things how the supernormal control "Walter" once left a thumb-print on the plasticine in a locked box; in view of Price's book (which is more recent than Osborn's) one wonders whether this, too, was the finger-print of one of her friends. Finally, it may be interesting to note a remark made in this chapter about poltergeist phenomena, which Osborn connects with the telekinetic phenomena met with at séances:—"They are usually associated with children, and, curiously enough, often cease after the age of puberty" (p. 162).

There is a great deal of material in the second part of the book, but the chapter on Telepathy has a special interest as belief in telepathy seems to be approaching scientific

respectability. We are told that "F. W. H. Myers in 1882 coined the word 'Telepathy', which he defined as 'The communication of impressions of any kind from one mind to another independent of the recognised channels of sense'" (p. 81). Osborn is chiefly concerned with three series of experiments, but I should imagine that these investigations *began* because of something observed under quite ordinary conditions, namely, the way in which two or more people sometimes think of the same event simultaneously, when this event seems to have nothing to do with their occupations at the time. But it is just as odd that any *one* of the group should think of the given event in an apparently accidental way, as that it should be thought of by more than one, and we should expect to find that the reason why A thought of it, and the reason why B thought of it, was the same, and not that the thinking of either person explained that of the other. Osborn himself says, concerning the way in which "a friend will express an idea when the same thought is on our own lips", that he has found a great proportion of such instances to be due to a common stimulus.

The three series of experiments referred to are those conducted by Professor Gilbert Murray, by Upton Sinclair and his wife, and by Dr. J. B. Rhine. The first two groups of experiments are less removed from the everyday occurrences mentioned than is Rhine's, but they also differ from them in this respect that we now have someone, as we say, "choosing" to concentrate on some topic or object, and in the Murray experiment described by Osborn, we also have people other than the one who selected the topic accepting it as the thing to be concentrated on. In considering the accounts of the Murray and the Sinclair experiment, one is up against the difficulty of insufficient information. It might be objected that this is what the rejector of telepathy would always say, that he simply rules out a priori the "success" of any case offered, and demands that he be supplied with some piece of information which shows the alleged success to be a normal occurrence. But there is the general point that no one could

pretend to have given an exhaustive account of the conditions of a supposed success—clearly here cameras and dictaphones are of little value—and so the “normal” type of explanation could not be ruled out. And, apart from this, the information Osborn gives about Murray’s experiment is extremely scanty and there are questions that cry out to be answered.

The account is as follows: “The Professor having left the room, Mrs. Arnold Toynbee—the ‘transmitter’ on the occasion I am about to describe—said to the group: ‘I think of the beginning of a story by Dostoevsky, where the dog of a poor old man is dying in a restaurant.’

“Professor Murray, returning to the room, said: ‘I think it’s a thing in a book. I should think a Russian book. A very miserable old man, and I think he’s doing something with a dead dog. A very unhappy one. I rather think it is in a restaurant and people are mocking, and then they are sorry and want to be kind. I am not sure (Question: What nationality?). No—I don’t get their nationality. I have a feeling it is a sort of Gorki thing. I have a feeling that it is something Russian.’

“It is to be noted that Mrs. Toynbee had not said anything about people mocking, then being sorry and wanting to be kind. Yet it was all true. Professor Murray had not read the book” (p. 82).

The fact that Murray had information additional to that spoken by Mrs. Toynbee apparently serves for Osborn just as further evidence of telepathy, whereas unless these things were thought by Mrs. T. or by some other member of the group, they surely present a difficulty for that explanation. The same applies to the omissions; Murray doesn’t get the definite information that the scene is from Dostoevsky, but only that it is a sort of Gorki thing, something Russian. Again he misses the point that it is the beginning of a story, and he apparently misses out on the earlier stage of the story for the dog is definitely dead with him. There is also a possible discrepancy between Mrs. T.’s “poor”, and Murray’s “miserable”, “unhappy”, depending on what Mrs. T. meant by

poor. Are we to take it that someone in the group thought Mrs. T. was wrong, and that the scene was out of one of Gorki's stories, or that someone at least thought it sounded more like a Gorki scene? Again, did someone run through the later parts of the scene, thinking of the actual death of the dog, and of the changing attitude of the bystanders? Even a person sympathetic to telepathy should want to know just what form the concentration on the selected scene took.

However, suppose we were given accounts of the way the various members of the group concentrated, there would still be difficulties to be faced. If we consider the way in which our thoughts run on occasions not dissimilar to this, we should expect that the Dostoievsky scene was by no means the only thing thought about. We should expect also that even if no details were purposely left out, some would be forgotten; but, assuming that it was all remembered, there would be a tendency not to retail some parts, because of their silliness or because they would cause embarrassment. And it would be extremely difficult, if not impossible, to check the truth and completeness of the accounts.

We can, I think, assume that each person would think of a number of things apart from the scene selected, and the question is why Murray did not receive them also. If the theory is that only the thing concentrated on is communicated, that should be made clear, and equally so if the theory is that only what is thought in common is communicated. It would, however, be difficult to fit in the latter theory with the extra material mentioned by Murray. As a final point along these lines, we need more information about Murray's "reception". Did he think of many other things on the occasion in question? If so, and as before I should assume this to be the case, why did he choose the things he did? Did he think these with some special definiteness, or did he think they were what was thought by the others, or were they just the only sensible and connected thoughts he had?

The more important question remains of why Mrs. Toynebee thought of the Dostoievsky scene. If we could answer

that, we should, I think, be at least on the way to understanding why Murray should have thought as he did. I should imagine that in this case, as in the everyday occurrences Osborn mentions, there was some common stimulus, causing both Mrs. Toynbee and Murray to be reminded of the scene. We are told that Murray had not read the story, but reading is not the only way in which he could gain some acquaintance with it. In certain circles talk of such and such a scene in literature, opera or ballet must be fairly common, and we can assume that Murray has been present at various such discussions; he may well have obtained his information in this way and have forgotten the occasion.

In the Sinclair experiment described, a Robert Irwin "having agreed to make a drawing of any object he might select, at random, and then to sit gazing at it, concentrating his entire attention upon it for a period of from fifteen to twenty minutes" (Sinclair, *Mental Radio*), did so at a specified time; at this same time Mrs. Sinclair, forty miles away by road, employing a certain method of concentration, found that a certain image persisted, namely, of a table-fork which was the object drawn. Here again one would want further information, as to the relations between the Sinclairs and the Irwins, and as to their respective activities previous to the experiment. As before, I think we should be on the way to an explanation if we could find why Irwin drew a table-fork. His selection of this will not be something *random*, but will be as determined as any other of his activities. The hypothesis of a common stimulus is more difficult to accept in this case, though it is not an impossible explanation. We are not, however, confined to that explanation and the opponent of telepathy could elaborate various hypotheses to explain the event.

There are certain general facts that are relevant to these experiments. The "transmitter" and the "receiver", simply as both being human beings, might each have the same train of thought very easily set off, and all the more easily if they are both of the same class, both of the same circle, or connected

in various other ways. Then as to the same train of thought being set off in both at the same time, it is not beyond credence that in some cases it is the very nature of the experiment which explains this. The transmitter must make some effort to select a topic or object that is not too closely connected with his ordinary pursuits, or with his present environment, while the receiver also tries to shut his mind to his environment, and to isolate himself from his previous occupations. It is at least arguable that under these circumstances the two might be expected to think of the same things. But further the fact that neither party can actually cut himself off in this way, leaves the possibility of a common stimulus, or of similar stimuli setting off the same train of thought in each. Considering the latter possibility, anyone acquainted with the quirks of association knows that objects that seem to have very little in common can set off the same line of thought in an individual, and following this up, we see that the two stimuli would not need to be obviously similar.

The experiments of Dr. Rhine are rather different from those of Murray and Sinclair. Osborn does not make their nature clear, but if as he says the tests were meant to determine clairvoyance as well as telepathy—the former being deemed to have occurred when neither experimenter nor subject knew the card—I assume that it is not just a question of the subject selecting a card of a certain type, but also of his stating its type. I take it that the subject knows that any one of the cards (presumably placed face-down) is marked either with a star, a circle, a rectangle, a cross, or two parallel wavy lines, and that if the test is to be a success, he has both to select a card of the type the experimenter has decided on—perhaps even a particular card of this type—and to state the nature of the card correctly. None of these points are made clear by Osborn, but he maintains that “the rate of scoring far exceeded any estimate based on chance. In fact, in some cases the odds against chance were over 1,000,000,000 to 1” (p. 84). If the experiments are as suggested, then we could give a psychological explanation of the fact that some-

times when the experimenter picks a certain type of card, the subject believes that his card is of the same type, but as regards the subject's belief being correct, we should take this as a correct *guess* on his part. We should reject the appeal to *laws* of chance, or laws of probability, and argue that this part of the test raises no problem.

It will already be clear that Osborn is no theorist—he lacks both the concern for detailed evidence, and the sense of large issues being involved, that a theorist requires. He is also a dabbler, as appears especially in the first part of the book which is meant to be a presentation and criticism of materialism, and in which we have brief references to Kant, Berkeley, James, Jevons, Driesch, etc. Reading this part of the book might conceivably interest a person in some of the problems of philosophy, but it is absurdly superficial; theories are constantly dismissed in a series of chirpy little question-begging paragraphs. Osborn certainly makes points against some of the theories that have been called materialist, chiefly against the epiphenomenalist theory of mind, but the argument as a whole is too weak to merit the detailed consideration which refutation of it would require. We might agree with Osborn on the main point, namely in rejecting any attempt to reduce the mental to the non-mental, but he himself seems to accept the general notion of reduction, to judge from his remark on various occasions that a given theory only “describes” and does not “explain” some phenomenon. This should probably also be connected with his belief—apparent in the chapter on Reincarnation and Some Philosophical Reflections—that philosophy should be something which “gives meaning to our personal lives, and at least a glimpse of a purpose inherent in the universe” (p. 251).

Alice R. Walker.